

Safeguard Enterprise Secure PDF Writer

Product Manual for Windows

Version 4

Revision 1.24

www.Locklizard.com

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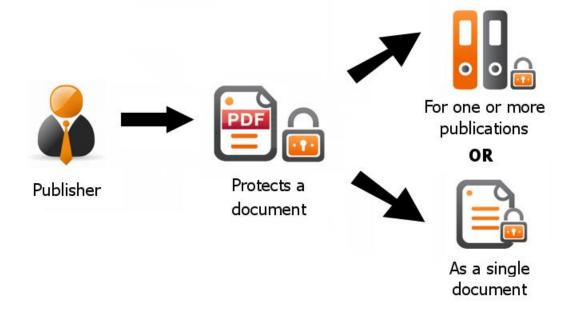
Chapter 1: Introduction

This manual has been developed to give a publisher both a high level overview and detailed description of the Safeguard Enterprise administration system and the Safeguard Enterprise Writer application, and how they work together to allow a Publisher to deliver DRM controlled information to their customers/users.

1.1 System Overview

The conceptual system used by Safeguard Enterprise is shown in the following pictures:

STEP 1: Publisher secures a PDF document



This is done using the Writer application. Information about the controls to be applied is stored both with the individual documents and on an Administration server, which is a web server that will be accessible to customers/users of protected documents.



Step 2: Publisher uploads the secure PDF document to his web site



Step 3: Customer/user sees a document or publication they want to use



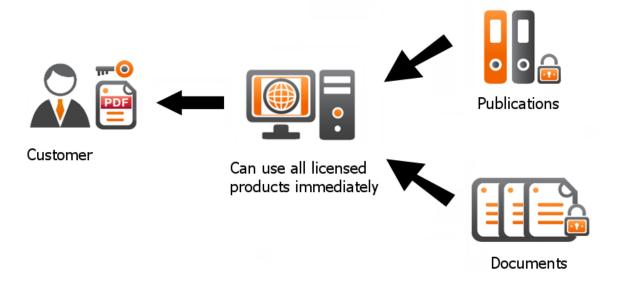
Step 4: Customer/user installs a Viewer if one is not already installed



Step 5: Customer/user installs a license for the Publisher if not already installed



Step 6: Customer may now use all documents authorized by the publisher



In the remainder of this section we discuss some of the general technical features of the Safeguard system, and how these are used to provide security improvements over traditional licensing systems. We also discuss some of the general interaction between expiry controls, branding methods, and watermarking techniques.

Throughout the manual, when we refer to a Publisher, we mean the organization that is protecting the PDF document for controlled circulation. When we refer to a customer or user, these are interchangeable. They mean the authorized recipient of a protected PDF document. In an IRM (Internal Rights Management) system these are internal staff or contractors of the Publisher. In a DRM (Digital Rights Management) system these are the customers licensed to use documents. Safeguard is a hybrid DRM system, allowing it to be deployed for internal management use, for operation with partners and contractors, and with customers who are not part of any network or system.

1.2 Encryption, and how it is used

Locklizard uses powerful US Government strength encryption (AES 256 bit) in order to protect your documents from being stolen or pirated.

Documents are encrypted with a unique random key generated at the instant moment the document is protected.

If you publish all your PDF's as individual documents, then each time a customer needs access to a document you will need to add it manually to their list of authorized documents before they can view it.



NOTE: eCommerce integration

If you are using the eCommerce integration module then customer access to documents can be granted automatically upon successful purchase and no manual intervention is necessary.

If you publish PDF's to a publication, the document(s) are all associated with that publication on the Administration system. When a customer has been authorized to view a publication, provided their customer access dates are valid, the customer will be able to view all of the documents that have been published as part of that publication. You do not need to make any additional changes to the Administration system for this to occur. This means that the customer is able to immediately use new documents regardless of how you ship them (e-mail, flash card, CD-ROM for instance). Further, unless your controls require the user to verify their license conditions, they do not have to be online to use new documents in a publication.

If you publish a PDF document for all customers, then when the document is opened, the customer record will be checked to make sure they are a valid customer, and if so, they will be allowed to view the document. Please note that all valid customers will be able to view any document you protect in this manner, and, therefore, any customer can use it (assuming they can of course get hold of a copy) and you cannot limit access to a particular group.



DRM Controls are applied at the document level. This means you decide just how important each individual document is. This more closely matches the value of the information rather than assuming that the customer always has the same rights for every document you make available to them. You can allocate documents with different rights to the same publication and each document will be handled individually.

You can publish the same document more than once, applying different controls each time, and expiry can be controlled at both the document and the customer level.

Locklizard provides a secure exchange mechanism in order to transfer the required decryption key down to the customer's desktop after validating the customer's authorization to receive the key. While we use public key technology, no PKI key management is required by you as the publisher or by your customers – it is all handled transparently by the licensing system.

Keys are seamlessly delivered to your customers' computers, bonded to individual computers (so they can't be copied and shared) and stored in encrypted form. There are no passwords to enter, manage, compromise, forget, or pass on to others, and the system is not open to password attack. There are no certificates to revoke when you want to terminate a customer's access or any other PKI complexity. See also 'How Secure is Safeguard Enterprise'



Documents are always encrypted locally on your computer so that the non-secure versions (the original source PDF documents) are never exposed to potential compromise on a web server or in transfer to one of our servers. Protected documents can be distributed just like any other files – by email, CD, etc., or made available for download from your web site. Since the files are encrypted, it does not matter who gets hold of them. They cannot view them without having first been authorized by you, as the publisher, to do so.



1.3 Expiring and revoking customers, publications and documents

Safeguard Enterprise has a sophisticated series of controls that allow you to manage access to documents in a simple way, and also to cease access to documents.

It has to be remembered that license information at the client end of the system can only be altered when the

- a) Viewer has to connect to the Administration server; and
- b) relevant license details are being checked.

If the customer or user is able to use documents without any license check, access to those documents can never be revoked even though you may be able to revoke access to documents that do have license checks. There is one exception to this case, which is if the customer/user ever has to replace their keystore, because every document on their license is then validated as if it is being opened for the very first time.

1.3.1 Instant revocation for distributed documents and persistent version control

Safeguard Enterprise gives you total control over when your customers and/or your documents expire. Safeguard Enterprise enables you to manage your subscription base effortlessly by providing individual publication expiry on a user basis. Your customers, for example, may subscribe to one of your publications for a year, and all documents in that publication are accessible to them for a year. After a year, your customers will still be able to view their existing subscription documents, but not any new ones that are published after their subscription period has ended, unless of course they pay for another year's subscription.



In addition you can control document expiry. Regardless of your customer's subscription to your publications, you may have certain documents that are time-sensitive and must not be viewable after a certain date. This feature also lets you ensure that only the authorized or current versions of documents are used after publication because the obsolete versions can no longer be accessed. You can also specify how many times a document can be viewed regardless of the date when it expires (if ever).

You can force your customers to connect to an Administration server (this happens transparently) before they view your protected PDF documents. This can be every time they want to view your documents, or after a certain number of days. If you choose a number of days, then after the length of time you set has passed your customers must go back online to gain further access. Using this option you can instantly revoke customer access to previously distributed documents as the decryption key required to view your protected PDF documents is instantly expired.

Or if you are certain that you will not need to revoke documents in the future then you can allow users to permanently view documents offline. Please note that a connection to the Administration server will always occur the first time a customer views one of your documents for the first time in order for the Viewer software to obtain the decryption key. If you are using publications however, a connection will only be required once to obtain the publication decryption key. Further documents in that publication can be viewed offline without having to connect unless document controls specifically enforce this.



1.4 Complete off-line Protection and controls

Document control properties are retained with each document so there is no need for your customers to connect to the Internet in order to view your protected PDF files (assuming of course that they have the correct decryption key stored on their computer).

Whether you want your customers to connect to the Internet or not in order to use your documents is a decision you make when protecting your PDF documents. If they do not have to connect to the Internet to verify their license details then it is not possible to revoke their access.

1.5 Customizable Message Text & Splash Screen

When you set up customer accounts on the Administration server, your customers are automatically sent an email with

- 1) a download link to the Viewer software, and
- 2) an attached license file and/or a link to a license file.

This email is automatically customized with your name and email address in it so your customers know who to contact if they have any problems accessing your documents. If you are using the ecommerce interface (optional purchasable item) then you can also display this information on a web page so it is readily available to your customers after purchase. You can also disable the system sending out registration emails altogether and choose whether license files should be sent as embedded links or attachments.

You can specify the text that will be displayed if a customer does not have authorization to view your protected documents - e.g. who they must contact in order to be authorized to view the document, or redirect them to a web page that displays this information.



You can specify the text that will be displayed when your documents expire or have users redirected to a web page of your choice. This information can be displayed at expiry time, or *n* days before your documents expire in order to give your customers ample time to renew their subscriptions.

The first time a document is viewed you can redirect users to a web page (optional). For example, you may want to display your terms and conditions, additional products that your customers might be interested in purchasing.

Each time a protected document is loaded, a splash screen can be displayed (optional). You can insert your own image here (say, your company logo and a brief message) to customize Safeguard Enterprise for your company.

1.6 Watermarking

Watermarks can be applied to documents when they are printed and/or when they are viewed. Both images and custom text are supported along with dynamic system data - user name, email address, date and time stamps. You do not have to protect documents for individual customers - customer identification is carried out dynamically for you and customer/system specific information is dynamically inserted when the document is viewed/printed.

On the viewing side, the advantage of applying a watermark at the protection stage is that you don't have to apply a fixed text (non-dynamic) watermark to the original document for each specific user. You can also choose for the watermark to be displayed only when viewing, so prints can be made without watermarks being applied to them.

On the printing side, you can choose for the watermark to be displayed only when the document is printed. Your customers can therefore view documents clearly, but the documents are protected against simple photocopying when printed.



1.6.1 Selecting suitable watermarks

All security controls seek a balance between ease of use (appearance) and effectiveness (preventing theft). A watermark that is too heavy may make the document difficult and unpleasant to read, whilst if it is too light a scanner or photocopier may ignore it because the contrast is too low.

A text watermark that is too bold may obscure text in a document, if it crosses it, but if the watermark is not closely associated with the content it could be easily blanked off by a photo editor.

Similarly, a watermark that is of a color not used in the document can be easily removed by a reasonable graphics package.

Setting a document font size too small and using a large thin font for the watermark may make the watermark difficult to remove and may resist photocopying/scanning because the text is likely to fill in, but also makes it difficult to read. Using a complex graphic watermark may help reveal attempts to falsify document content, but again, may make it difficult to read.

So selecting a suitable watermarking approach has to consider:

- What is the business requirement;
 - provide a simple deterrent to copying;
 - o create a watermark that is difficult to remove but unsightly;
 - o improve the changes of identifying those misusing documents, but make them less pleasant to read;
 - o prevent content falsification or passing off as original
- What extent of document quality/branding/usability can be accepted;
- Is the watermarking technique for several document types regardless of actual content or must it be determined on a document by document basis.

Locklizard may be able to provide customers with examples of different combinations of those for assistance with their own designs.



1.7 Safeguard Enterprise Features

- Complete and secure control over PDF document usage viewing and printing (including the number of times), etc.
- Copying, saving and modifying documents is always prevented;
- Persistent end-to-end protection throughout a document's life-cycle;
- Full control over PDF document security inside or outside of the firewall, online and offline;
- Real-time web based licensing control issue licenses, and manage customers and documents online. Suspend and enable individual licenses, and restrict registration of licenses to a specific IP / range of IP addresses.
 You do not need to know the recipient when you protect documents;
- Transparent real-time web-based customer authorization;
- No passwords to send, manage, enter, forget, or pass on to others;
- Customer and document expiry you control how long your customers can view your PDF documents;
- Instant user revocation you can terminate your customer's access to a document instantly;
- Watermarking on printing and/or viewing. Have specific user information (dynamic), custom text and/or images displayed on documents when printed and/or viewed;
- Print screen automatically disabled to prevent users taking screenshots of your documents;
- Prevent use of third party screen grabbers;
- Print-to-file drivers, printing to PDF and XPS, are automatically disabled to prevent re-distilling PDF documents;
- Complete offline protection no need to connect to the Internet to view existing documents;
- Offline / online access management control how long a customer can access your documents offline before their license must be checked;
- Simple-to-protect, simple-to-use, simple-to-administer PDF documents;



- Quick set up existing customer information can be imported and no configuring of servers is required;
- Log system, user, and document activity;
- Statistics and report generation;
- Customizable message text or web page redirection for unauthorized access and expiry, customizable welcome message, and document splash screen;
- Enable/disable/resend registration emails, and send license files as attachments or links;
- Complete integration with your e-commerce system (optional extra). For more information see http://www.Locklizard.com/product-add-ons.htm;
- Batch automation with command line processing (optional extra). For more information see http://www.Locklizard.com/product-add-ons.htm;
- Completely managed administration system (fully hosted by us) or hosted on your own server;
- Backup and Restore individual sections or the entire administration system;
- No limit to the number of documents that you can protect or the number of customers that can subscribe to your publications;
- FREE Viewer software (nothing extra for users to purchase). You can enforce viewer updates so that users are always using the latest version;
- Silent installation for Viewer Viewer software can be installed silently across a network for quick installation in a corporate environment;
- Browser and USB based zero installation Viewers;
- Original and protected documents stay on your servers, in your control, and are not transferred to Locklizard;
- Protected documents may be delivered to recipients as email attachments, downloads, on DVD/CD or flash drive;
- Bullet-proof protection public key technology and US Government strength encryption (AES 256 bit).



1.8 Safeguard Enterprise and support of Apple Macintosh Clients

Safeguard Viewer is designed for the Windows operating system. A separate Viewer is available for the Macintosh operating system but it has the following limitations:

- 1. Preventing print screen or third-party screen grabber utilities is not supported;
- 2. Only view watermarks are supported (text and images) and they are always displayed on top of the PDF content. Document watermarking is not supported on printouts;
- 3. It does not stop printing to file drivers;
- 4. Display settings (set in the display settings tab of the Writer program) are ignored;
- 5. External file links links to local files are not supported (URL links are supported);
- 6. The Viewer cannot be prevented from running in thin client and virtual environments. See Thin Client for further information;
- 7. Custom branding (optional extra) is not supported.

You should bear these in mind if your customer base includes Mac clients, and especially when authorizing printing, since watermarks will not be displayed. If your customer base does not include Mac clients then you may want to consider using the option in the Writer software 'Disallow use on Macintosh operating systems'.



1.9 Safeguard Enterprise and support of iOS & Android Clients

Mobile operating systems do not offer the same environmental controls as are available on the PC. In the main, available system controls are similar to those of Mac computers, and publishers should be aware of the following:

- 1. Printing is not supported;
- 2. Preventing print screen or third-party screen grabber utilities is not supported on iOS devices;
- 3. Watermarking;
 - Watermarks are always displayed on top of the PDF content.
 - A default system font is always used (rather than the font you have specified).
 - Font size, color, and styles bold and italic are supported.
 - Custom positioning of watermarks (manually moving the watermarks to an exact page position) are not supported.
- 4. Display settings (set in the display settings tab of the Writer program) are ignored;
- 5. External file links;
 - Links to local files are not supported.
 - URL links are supported.
- 6. Custom branding (optional extra) is not supported. No image is displayed in the Viewer toolbar;
- 7. Just like the Windows Viewer, only static PDF files are supported animations, annotations, and attachments are not supported;
- 8. Jailbroken and rooted devices are not supported for security reasons;
- 9. Devices with custom ROMs are not supported. Note that some cheaper Android tablets come loaded with custom ROMs by default and the Viewer will not run on those devices;



10. Running the Viewer from an emulated device (i.e. emulated Android OS on a desktop computer) is not supported.

You should bear these in mind if your customer base includes mobile OS clients. If your customer base does not include mobile OS clients then you may want to consider using the option in the Writer software '<u>Disallow use on Macintosh</u> operating systems'.



1.10 Safeguard Enterprise and internal company use

When this manual was prepared, it was written from the point of view that you are a publisher, and that you are selling documents, ebooks, subscription services and so on to customers (either as individuals or as corporate bodies).

This does not mean that Safeguard Enterprise can only be used in that context. Many of our customers use Safeguard Enterprise to protect internal documents that have controlled circulations, including being able to control their use externally by business partners where that is appropriate.

When it is used internally, the publisher role becomes the document manager or document administrator, and they (and their staff) have the responsibility for allocating users (rather than customers) and for protecting documents for circulation to users.

Locklizard developed the concept of grouping documents together under a publication for the subscription services market, where a publisher sells a subscription (3 months, 6 months, 1 year) to receive regular copies of a periodical (a magazine, monthly financial report, study course) and purchasers receive immediate access to new editions.

The concept of the publication remains valuable in the corporate context. But instead of publications being used as part of a subscription service, they can be considered to be regular reports, such as monthly accounts, management reports, departmental reports, or documents that must be circulated in a controlled manner to defined groups — sales support manuals, repair manuals, departmental briefing documents. These can all be considered to be 'publications' and the staff or users as 'customers' who are given access to the relevant schedules of information.



Internal user administration is achieved through a combination of normal logon account management (which runs outside of the Safeguard features), for instance, to cease access to internal networks immediately if an employee leaves. Safeguard Enterprise controls may be used to revoke access to specific 'publications' if an employee changes job function or location, and may also be used to stop access from roaming users or users who are part of other businesses where the IT access control mechanisms have no effect.

<u>Chapter 10</u> explains in more detail how Safeguard Enterprise can be used for internal company use.



Chapter 2: Installation

2.1 Pre-requisites

Safeguard Writer is compatible with the following platforms:

- Windows XP with SP 3 or above
- Windows Vista
- Windows 7
- Windows 8
- Windows Server 2003 & above

IMPORTANT NOTE: You must have Windows administration privileges in order to install the Writer software. In Windows 7, 8, and 2008 you must also right-click on the installation exe and select 'Run as Administrator'.

2.2 Installing the Writer

Double-click on the SafeguardPDFWriter_Enterprise.exe file in Windows Explorer to start the installation process. The installation process is straightforward and it takes less than a minute from start to finish.

Screenshots of the installation process are shown below and are self-explanatory.





Diagram 1: Safeguard Writer Setup Wizard



Diagram 2: Safeguard Writer License agreement



Diagram 3: Safeguard Writer Installation folder



Diagram 4: Safeguard Writer Shortcut folder



Diagram 5: Safeguard Writer Installation settings



Diagram 6: Safeguard Writer Installation complete

2.2.1 Disabling Automatic Updates

You may want to disable the auto update checker in the Writer from running if you don't want to force your customers to have to upgrade their Viewers when it may be part of their corporate IT policy to only upgrade a small number of times a year. This is necessary because users have to upgrade their Viewers if you use new functionality in a Writer release that is not supported by the earlier Viewers installed in your user base.

Additionally, you may wish to implement an updated Writer for testing and acceptance purposes without converting all your Writers, so that continuity of service can be maintained until you are satisfied that the new Writer will achieve your requirements. If this is the case you will need to disable the automatic update checker.

Example of use - disable automatic update checks:

SafeguardPDFWriter v26.exe /UPDATE="0"

Example of use - enable automatic update checks:

SafeguardPDFWriter v26.exe /UPDATE="1"



Even if automatic update checks are disabled users can still manually check for updates using the 'Check for Program Updates' option on the Help menu.

The auto check for updates option is saved as the "AutoCheck" value in the PDCWriter.ini file in the [Updater] section. If the AutoCheck value is missing or the AutoCheck value is 1 the Writer will check for updates every week. You can manually set the AutoCheck value to zero (AutoCheck=0) to disable the update check if you prefer.



2.3 **Proxy Settings**

On some systems, because of internal security requirements, firewall controls are set to prevent internal applications from connecting directly to external web addresses.

Further, to help prevent attacks from hackers, and prevent keyloggers and other programs commonly used by hackers, viruses, and worms to send confidential internal data to outsiders, internal systems may use non-standard port addresses when connecting to the firewall to access web services.

Finally, the firewall may require users who wish to use external services to authenticate themselves to the firewall before they are able to use external services.

To support these higher security requirements, Safeguard Enterprise allows you to configure your proxy settings in both the Writer and Viewer programs.

Safeguard Writer automatically picks up existing proxy information from Internet Explorer if it is available. However, if your proxy requires authentication, a dialog box will be displayed where you must enter the user name and password needed to authenticate yourself to the proxy. Your internal IT department should be able to provide you with the necessary information to complete the authorization.



Diagram 7: Proxy authentication dialog



There may be circumstances when you need to manually override these settings before you can register and use the Writer software.

To manually configure proxy settings left click on the Windows Start menu and select Programs > Locklizard > Safeguard Enterprise > PDF Writer > Proxy Settings.

The following dialog is then displayed.

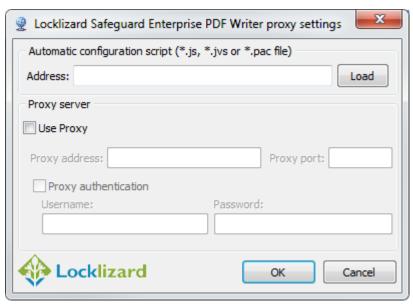


Diagram 8: Safeguard Writer proxy settings

This dialog enables you to set the proxy from a configuration script or by manual entry.

2.3.1 Automatic configuration script

The Writer can also be configured using a proxy administration PROXY.PAC file (a plain text file containing a JavaScript function that will automatically configure the proxy settings to be used). In the 'Address' field, type in the full path of the Proxy.pac file you want to use (either an http:// path or a local file) and then press the Load button. This file will have been provided by your IT department and not by Locklizard.

Below is an example proxy.pac configuration file that will make the Viewer (or Internet Explorer) go via a local proxy server if a connection is made to www.Locklizard.com:



```
function FindProxyForURL(url, host)
{
  if (shExpMatch(url, "http://www.Locklizard.com*"))
    return "PROXY 192.168.1.1:8080";
else
    return "DIRECT";
}
```

2.3.2 Proxy server manual entry settings

To manually enter proxy settings, check the 'Use proxy' checkbox and then enter the address the proxy requires in the 'Proxy address' field.

Your IT support group will be able to tell you the address you should enter here. Also, ask them if you need to enter a specific port address. Safeguard Enterprise uses port 443 to securely address (using HTTPS) the Locklizard Administration server. Port 80 is used for non-secure traffic (HTTP). If your internal system requires the use of a different port for the connection you must enter it in the Proxy port box.

If you have installed the Administration System on your own server you may select any port you wish in order to communicate with it.

If your internal control system requires authentication at the firewall then check the 'Proxy authentication' checkbox and enter in the fields provided the username and password that your IT department have allocated to access the firewall service. If you do not supply the Proxy authentication data (username/password) but the proxy server requires authentication, a dialog box asking for the username and password will be automatically displayed when Safeguard Writer tries to connect to the Internet.

If the "Use Proxy" check box is not checked, then the Writer will use the Internet Explorer settings for the Internet connection (assuming the proxy settings are defined in IE).

This utility is used for both the Writer and Viewer products. If both are being used on your computer then you only need to run the utility once because it configures both the Writer and Viewer applications at the same time.



Once you have registered the Writer and Viewer software they do not need the proxy settings again unless someone decides to change your internal proxy settings and they cannot be automatically picked up by the Writer/Viewer software.

Registering the Writer 2.4

Before you can start using Safeguard Writer you must first register it with the online licensing control system (administration system). In order to register, your computer must be connected to the Internet (or if you are hosting the Locklizard administration system on your own server then you must be able to connect to this server).

Regardless of whether you are evaluating, or you have purchased the software, you will have been sent an email containing your registration information.

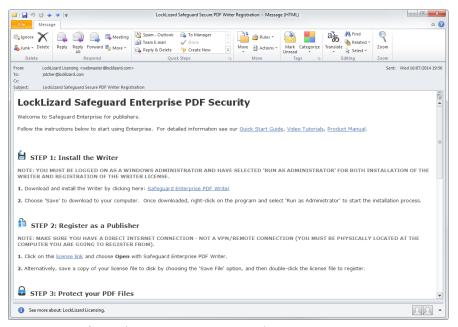


Diagram 9: Safeguard Writer Registration Email

Follow the instructions in the email to register. A message dialog confirms successful registration.

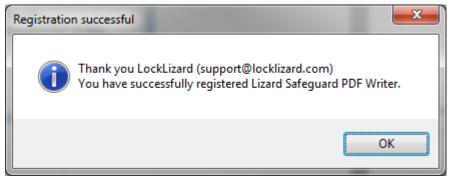


Diagram 10: Successful registration message

If you are not connected to the Internet at the point of registration then you will receive an error message and you will have to start the process again.



2.4.1 Web based email systems and registration

With web based email systems (where you view your emails through a web browser) you will need to save the license file to disk on your own computer before registering. To do this, click on the license link (in the Register the Writer section) and choose the option 'Save File'. You can then double-click on the license file (.llw file), so that the license process can be executed locally.



2.4.2 Firewall messages displayed during registration

Some firewalls may display the following message windows (or similar) during registration. This notifies you that Safeguard Writer is trying to access the Internet.



Diagram 11: Firewall message windows during registration

Click on the Allow option so that registration can take place.

Chapter 3: **Protecting PDF Files**

3.1 Pre-requisites

Before you can protect your documents you must first convert them to PDF format.

You can use a product such as Adobe Acrobat Standard or Professional, see www.adobe.com, or any other software that converts existing documents (Word, Excel, etc.) into PDF files in compliance with PDF standard 1.6. Later versions of Acrobat and other PDF conversion software are supported as long as the content is static and not dynamic (javascript, forms, etc.).

Filenames must only consist of ASCII characters (no special symbols) and only one full stop should be present in the filename. For example, finance_report23.pdf is acceptable, but finance.report23€.pdf is not.

3.2 Maximum file size sizes supported

Safeguard PDF Viewer, for security reasons, handles file decryption operations in memory only. No temporary or cache files are created. Depending on machine memory size, processor speed, and operating system this may restrict the maximum size of file that can be processed.

We advise that you should not protect files greater than 200MB in size for reliable use across a wide range of Windows and Apple Macintosh clients.



Protecting PDF Files 3.3

Once Safeguard Writer has been installed and registered you can start protecting PDF files.

Please bear in mind the following points before protecting PDF documents:

- 1. Copying, saving, and modifying protected documents is prevented at all times;
- Form filling, annotations, and screen readers are not supported;
- 3. Windows print screen is disabled by default, and cannot be used by any programs while the Viewer remains active;
- 4. Print-to-file drivers (for example Acrobat distiller or One-Note) cannot be used when printing through the Viewer application.

3.3.1 To protect a PDF file(s):

In Windows File Explorer, right-click on the file(s) that you want to protect and then select 'Make secure PDF' from the pop-up menu that is displayed.

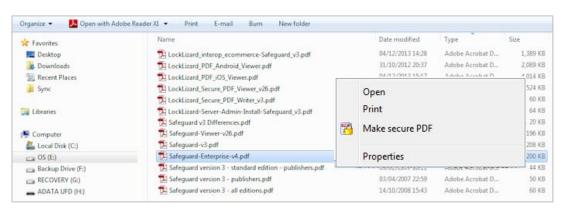


Diagram 12: Protecting PDF Files - Make secure PDF context menu in Windows File Explorer

You can also protect PDF documents by choosing the 'Protect Documents' option from the Windows Start menu > Programs > Locklizard > Safeguard > PDF Writer Enterprise menu.



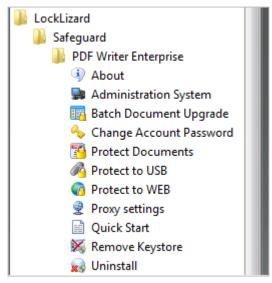


Diagram 13: PDF Writer menu

This will bring up a browse dialog where you can select the PDF documents you want to protect.

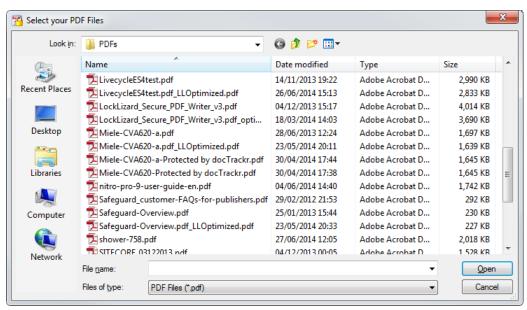


Diagram 14: PDF File selection dialog

The maximum number of files you can protect at a time using this method is 25. If you want to protect a larger number of files in one operation then please see <u>Safeguard Enterprise command Line Utility</u>.

Regardless of the option you choose, the Safeguard GUI is then displayed. The individual tab dialogs and their entries are now discussed in greater detail.



3.4 Customization Tab

Here you enter an optional title, notes and output folder for your document. You can also select a splash screen to display when your document loads in the Viewer software.

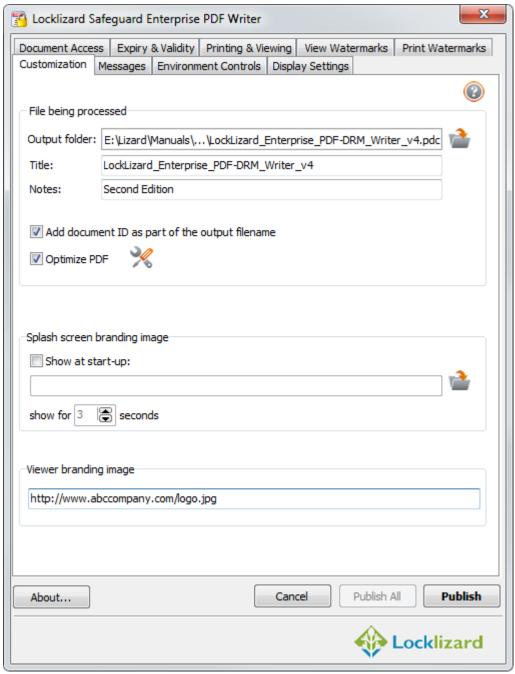


Diagram 15: Customization tab

3.4.1 File being processed

3.4.1.1 Output Folder

Enter or browse to the folder where the protected PDF document(s) will be saved. The default filename is the same as the PDF file you are protecting but with a .PDC file extension. You can change the file name later if you wish.

3.4.1.2 Title

Here you MUST enter a title for the PDF document you are protecting. The maximum length of this field is 100 characters.

The title you enter here is displayed on the Administration system and is used to identify the document. Therefore it should be unique. By default the filename is displayed minus the file extension, but you can change this to any text you want. Please see Chapter 11 for choosing suitable titles if you do not have any internal standards or naming conventions.

3.4.1.3 Notes

This is an optional field where you can enter a description for the document (up to 200 characters in length) for your own reference or for easier searching on the administration system. It is not used anywhere else.

3.4.1.4 Add Document ID as part of the output filename

Check this box if you want the document ID to be part of the output filename. This is useful when working with Locklizard ecommerce integration commands where the document ID has to be quoted. It is also useful if you protect documents with the same name (since each document you protect is assigned a specific ID), or if you need to know the latest version of a document since the document ID is always ascending.



3.4.1.5 Optimize PDF

Check this box if you want to reduce the size of the PDF file and increase load time, by removing unnecessary and obsolete objects.

You can select individual items by pressing the button.

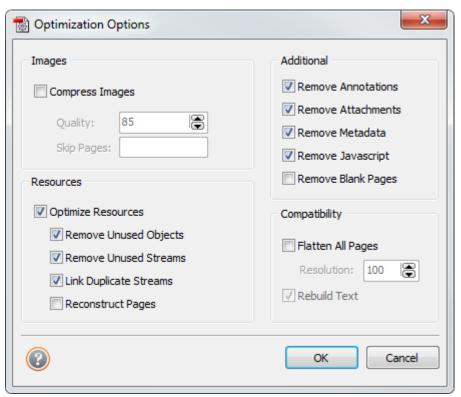


Diagram 16: Optimization options

We recommend that you leave the default boxes checked and select additional items if required. Detailed information about each item can be found by pressing the button.

3.4.2 Splash screen branding image

Here you can choose whether a splash screen is displayed, and how long for, whenever your protected PDF documents are loaded in the Safeguard Viewer.

3.4.2.1 Show at start-up

Check this box if you want a splash screen displayed. You can either display the Lizard Safeguard splash screen (this is the default if no image is selected), or you can change this to an image of your own, say your company logo or an image that tells your customers they are about to view a protected document, or asserting your Copyright to the information.

Supported image formats are PNG (without transparency) and JPG. There is no limit to the size of the image, but you may want to keep the final image size to a maximum of 640x480 pixels so that customers using low-resolution monitors can still view the full image correctly.

3.4.2.2 Show for x seconds

Select the number of seconds you want the splash screen displayed for. The default is 3 seconds. However you might want to increase the default value if you are displaying a copyright notice that could take longer to read.

The actual display time may vary slightly from computer to computer depending on the CPU speed, memory, applications running and so on.

3.4.3 Viewer branding image

This field is displayed if you have purchased customer own branding. For more information see 'Viewer Branding'.



3.5 Messages Tab

Here you enter the message or web page that is displayed if a customer is not authorized to view your document, a welcome message when a document is first opened, and a message or web page when a document expires.

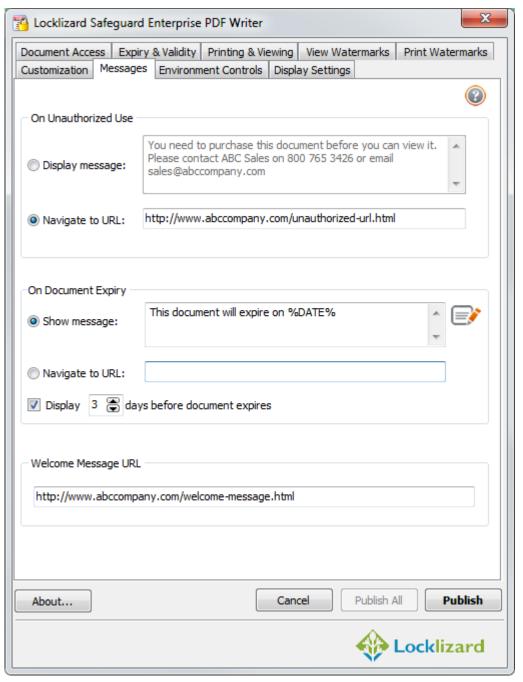


Diagram 16: Messages tab

3.5.1 On Unauthorized Use

3.5.1.1 Display Message

In this field you can type custom text that will be displayed if a customer does not have the correct key to view the document (and therefore needs to acquire a license from you).

This facility allows you to solicit for additional business by providing your sales contact details, if that is appropriate to your business model. This information is specific to each protected document you create, so no matter where a user downloads the Safeguard Viewer from, if they double-click on one of your protected PDF files and they do not have the correct key for your document, then they will see this message. The text you enter here is saved and displayed (editable) for use when you protect future documents.

If you do not enter any text then a default message is displayed – "You need to register with the publisher <Publisher name> <Publisher email address> before you can view any protected documents. To do this, double-click on the license file that was sent to you."

If a customer opens a protected document using a program such as Notepad (or similar character editor) they will also see this message at the top of the file in 'plain text'. So even if they don't have the Safeguard Viewer installed, provided you have entered appropriate text they will know whom they should contact for a license.

3.5.1.2 Navigate to URL

Here you can enter a URL (web page), for example, http://www.locklizard.com/purchase_license.htm, where customers will be redirected to if they do not have the correct key to view the document (and therefore need to acquire a license from you).

The URL approach is more flexible in that you can change the text your customers will see at any time without having to re-publish the document. However, it does require that your customers have an Internet connection available when they attempt to open the document.



3.5.2 On Document Expiry

Choose here whether to display a custom expiry message or to send customers to a web page for expiry information. **NOTE:** These options will be greyed-out if your document has not been set to expire.

The expiry URL/message is shown when a document expires, and applies to an expiry date, expiry in days, and a limited number of views.

3.5.2.1 Show message

Select this option if you want a custom expiry message to be displayed rather than the system default. Select the button if you want the expiry date of the document to be automatically inserted when the message is displayed.

3.5.2.2 Navigate to URL

Select this option if you want the customer to be sent to a web page. This option is more flexible and customizable, but does require the user to have an Internet connection when it is invoked.

3.5.2.3 Display n days before document expires

Select this option if you want the document expiry message/URL to be displayed *n* days before the document expires (the warning period). For example, you may want to warn customers before the document actually expires so they have time to renew their subscriptions. This will be displayed every time the document is opened during the warning period.

3.5.3 Welcome Message URL

Enter a URL in this field if you want to send the customer to a web page the very FIRST time they open the document. For example, you may want to display your terms and conditions, additional products that your customers might be interested in purchasing, or supplementary information for the document/ebook they have just purchased.



3.6 Environment Controls Tab

Here you configure whether taking screen shots of your document is allowed, or whether you want to apply enhanced screen capture protection. You can also specify whether your document can be viewed in certain environments.

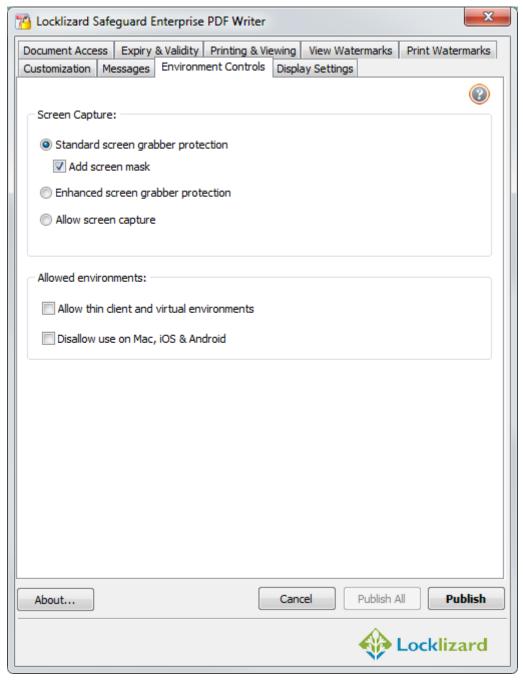


Diagram 17: Environment Controls tab

3.6.1 **Screen Capture**

3.6.1.1 Standard screen grabber protection

This is invoked by default, and a wide range of third party screen grabber applications are prevented from taking screenshots of your documents. This option works against a list of known screen grabber applications, and also prevents the use of copy and paste. Whilst the Viewer is running, Windows Print Screen cannot be used with any application.

Add screen mask

Check this box if you want a screen mask (image) to be displayed on top of your document if the mouse focus is moved away from the Viewer window. Using this option prevents using invoking screen capture applications that need to be activated by selecting options from that application in order to capture the screen.

You may NOT wish to select this option if training course instructors are using your documents to teach courses and they are using two screens – one to display the protected document and the other for notes /additional information. If the mouse focus is taken away from the screen the Viewer is not present on then the protected document will be masked.

3.6.1.2 Enhanced screen grabber protection

This option adds another layer of security to Safeguard's standard screen grabber protection by writing additional data to the display to confuse certain screen grabber applications. It also applies a screen mask if the mouse focus is moved away from the Viewer window.



IMPORTANT NOTE: Slow screen refresh rates

If this option is selected then the Viewer window will load slower and mouse scrolling will be noticeably slower. This may be an issue if you have customers using slow computers, or those that make significant use of mouse scrolling rather than the page up/down keys for document navigation.



3.6.1.3 Allow Screen Capture

If you select this option then your customers will be able to use Windows print screen and third party screen grabber applications to take image copies of the screen.

You may want to enable this option if you want to take screenshots for marketing purposes, or instructional use, or where your staff need to be able to print out individual pages of critical documents for internal use, or where you want to facilitate the ability to make use of the document for private study.

3.6.2 Allowed environments

This sets the environments that the Viewer software is allowed to operate in.

3.6.2.1 Allow Thin Client and Virtual Environments

If you select this option then your customers will be allowed to run the Viewer in Citrix, Windows Terminal Server, and other virtual environments.

In these environments, it is possible that the user can install one copy of the software on their server and register in centrally. This can then be used on multiple desktops without limitation. So even if you only grant a user one license, multiple users will be able to view and use your documents within their organization.

Since this option effectively introduces a security weakness to the system (viewers are no longer tied to individual computers), it is recommended that you only distribute separate documents with this option checked to users that are running these environments.



3.6.2.2 Disallow use on Mac, iOS & Android

If you select this option then your customers will NOT be allowed to run the Viewer on Macintosh, iOS, and Android Operating Systems.

Preventing screen grabbing and controlling the printing environment are problematic in the Macintosh and mobile OS environments because they were designed to be more open. Unfortunately this can make it difficult to achieve the same level of control as is available under Windows. You may wish to select this option to protect sensitive information or where you feel there is a high likelihood that skilled users will make use of Operating System facilities to obtain additional copies of documents.

For security features not supported on the Mac see <u>Mac Viewer</u> <u>Limitations</u>.

For security features not supported on iOS and Android see <u>iOS & Android Viewer Limitations</u>.



Display Settings Tab 3.7

The options you set in this tab determine how the protected document is first displayed when it is opened using the Safeguard Windows Viewer.

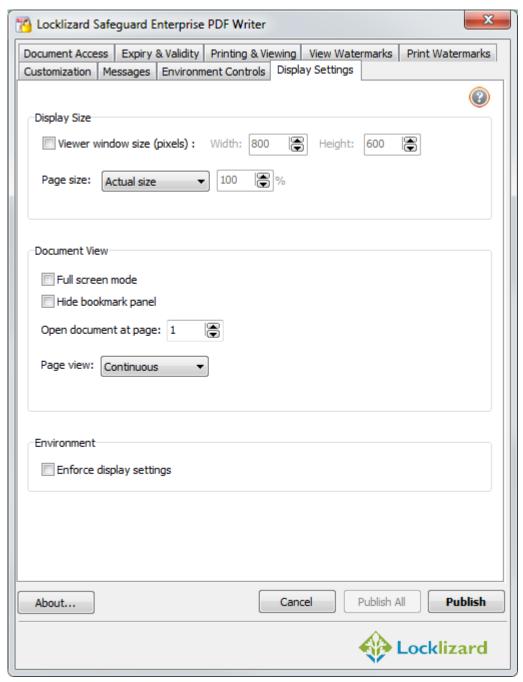


Diagram 18: Display Settings tab

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3.7.1 Full screen mode

If you select this option, the standard Viewer window is replaced by a black background. Full pages are shown on a black background.

Users can use the mouse to scroll up and down the document and the page up/down keys. If a user hits the ESC button on their keyboard then full screen mode is exited. If printing is allowed, then pressing CTRL-P will bring up the print dialog.

3.7.2 Viewer window size

If you select this option, then you must specify the width and height of the Viewer window.

By default the Viewer window is maximized for the screen resolution the user is running. If you specify a value that is larger than the user's screen resolution, then the Viewer application will resize the Viewer window to fit the maximum screen resolution being used.



NOTE: You cannot use this option with full screen mode.

3.7.3 Page view

Select from the pull-down list box how your pages are displayed.

- Single page use of the page/up down keys scrolls one page at a time.
- Continuous use of the page/up down keys provides a continuous scroll (this is the default).
- Facing two pages are displayed at a time and scrolling works with two pages visible.



3.7.4 Page size

Select from the pull-down list box the display page size that you want to be used when displaying your pages. The default is actual size.



NOTE: The maximum custom value size supported is 250 (zoom at 250%)

3.7.5 Open document at page *n*

Enter a value in the field provided, or use the up/down arrows to locate the page at which you want your document to open at (if not the first page).

3.7.6 Hide bookmark panel

Check this box if you do not want bookmarks to be displayed on opening.

3.7.7 Enforce display settings

Check this box if you want to enforce the display settings you have set in this tab so users cannot change how documents are displayed on-screen. If you select this option then users will not be able to change the document view settings whilst viewing the document. You may find this useful if there is a particular house style or branding that must be preserved.

If you don't select this option, then your document will load in the Viewer using the settings you have selected, but users can then change them if they find some other setting more convenient to them.

Note: Enforcing display settings & Full screen mode

Even if you have selected this option and the Full screen mode checkbox,
users will still be able to exit full screen view by pressing the ESC key on
their keyboard.



3.8 **Document Access Tab**

Here you decide how the document is made available for use. It may be for all customers, or have to be allocated individually to individual customers, or available to all customers with access to a specific publication.

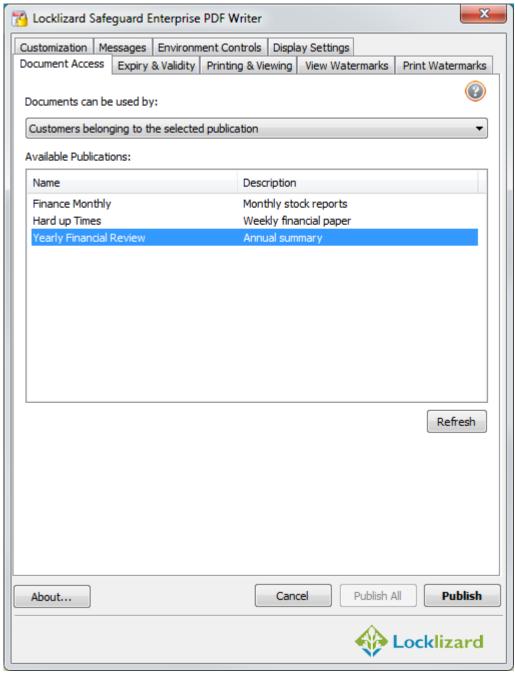


Diagram 19: Document Access tab

Documents can be used by:

There are three options available for publishing documents and the option you choose determines who can view your protected documents.

3.8.1 All customers

If you select this option, then all your customers will be able to view this document without the need for you to individually allocate documents or publications on the Administration system.

This is the best approach for documents such as special price lists which you want to make available to your entire customer base. In an internal control system you may need to make documents available to all of your staff rather than to certain individuals or groups of users.

3.8.2 Selected customers (must be individually allocated)

If you select this option, only the customers you specifically allocate access to this document will be able to view it. Documents have to be individually allocated to customers on the Administration system when you create or edit customer accounts.

This is the best approach for selling one-off documents such as books, single copies of a magazine, pictures and similar works. It has a particular advantage over publications in that you can change the document expiry controls that were set when the document was first published on an individual user basis (see Changing Document Expiry).



3.8.3 Customers belonging to the selected publication

If you select this option, rather than having to allocate individual documents to customers, you only need give them access to the publication 'containing' these documents. Only those customers given access to the publication you select will be able to view this document.

With this option, customers only have to obtain online the decryption key for the first use of any document in the publication. Normally, when you protect documents for selected customers, the Viewer software will seamlessly download each document decryption key from the server (provided that the user is entitled to view the document) when the document is first used. It does, therefore, require the user to be online at least once in order to retrieve the document key for each and every document published.

If you select the publication mode, then documents are protected using a common publication key, so that the customer only has to download one decryption key for the publication and can thereafter automatically view all the other documents published to that publication (subject to other controls) without the need for the Viewer software to download additional keys.

If you select this option then you MUST choose the publication that this document is to be assigned to from the Available Publications list box. You may only allocate one document to one publication at a time.

If you have not yet created any publications, you can do this now using the Administration system. Left-click on the Windows Start menu and select Programs > Locklizard > Safeguard Enterprise > PDF Writer > Administration System. Select the 'Publications' tab and then the 'Add Publication' option. Enter a Name and a Description (optional) for your publication. If you want users to only be able to access publications that were published during their customer account start and end dates, then check the 'obey customer start date' checkbox. Then press the Add button.

The Publisher panel you are filling in is shown in diagram 20.





Diagram 20: Administration System - Add Publications screen

Back in the Writer GUI, press the Refresh button to update the Available Publications list box with your newly added publication(s).

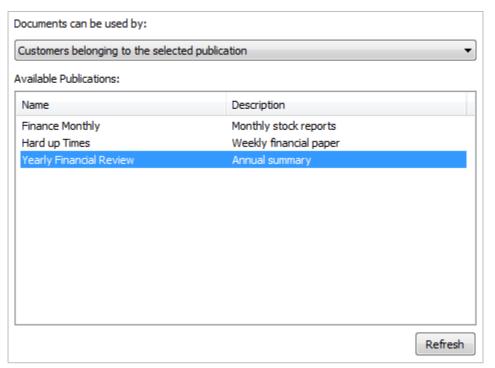


Diagram 21: Available Publications – updated list box

Select a publication by clicking on it to highlight it.

3.8.3.1 Why use publications?

Publishing documents to a publication is the most efficient choice when you are selling several customers a subscription to the same publication, say a daily newspaper, or a monthly magazine. Once registered, a subscriber is able to use all the documents in the publications they are entitled to as soon as they receive them.

A publication is a logical grouping of documents – for example, all the files in a training course, the monthly finance pack, board agendas and minutes. This grouping can be extended dynamically by adding more documents into it. It is a more useful structure than trying to put users into groups to access documents for a couple of reasons:

- users may be insiders or outsiders or both. The only thing that relates them is access to the family of documents;
- dynamic offline access of families of documents is much more difficult when each document is dealt with individually.

You may also want to use this facility if you want to enable your customers to access all the documents in a publication once they have registered to use any one document. Examples of this would be where you have provided a CD or DVD with many protected documents on it which are part of the same logical publication, and you want your customers to be able to use all the documents seamlessly, offline, once they have registered use of the first document. This may be because they need to be able to use the publication contents when an Internet connection is not available. If this is the case, then you need to make sure that you have not imposed any document controls that enforce a connection to the Administration server (limited the number of prints/views, logged document views/print requests, expiry in *n* days, or enforced an Internet connection every time/every *n* days the document is opened).



Another reason you may want to use publications is if you are updating versions of the same document on a regular basis. This is because even if you publish a document with the same name it is given a new document ID on the administration system and is therefore a different document than your original one. By creating a publication with the same name as the document you are going to be updating regularly (e.g. Finance Book for Beginners), you can publish all versions of the document to this publication and not have to worry about having to manually give customers access to the latest version. You just need to give your customers access to the publication and they will then be able to open all updates to the document without requiring further authorization.

You can protect documents that are part of a publication and are published separately in their own right (as free-standing documents). There are several reasons why this may be useful:

- You may want to send individual customers a sample document from one of your other publications without having to give them a license for an entire publication;
- You may want to provide outsiders with specific documents rather than granting blanket access;
- You may want to sell individual documents in their own right as well
 as having them as part of a publication. This would be the case when
 you have subscribers to a magazine or financial report, but also sell
 individual copies.

If you wish to do this, then you must protect the document twice, once as part of a publication, and once as an individual document (selected customers only).



CRITICAL NOTE: EFFECTS OF GRANTING DIRECT ACCESS TO DOCUMENTS THAT ARE PART OF A PUBLICATION

The key characteristic of a publication is that access to one publication document grants access to all others (within start and end date limitations and removal of documents) within that publication. If you decide to give non-publication users direct access to documents that have been published to a publication, then they will also be able to view all of the other documents in that publication (assuming they can get hold of them). We strongly advise publishers not to grant direct access to a document that has been published to a publication. If you wish to do this, then you should protect it again as a standalone document. You can then give users access to that document without granting access to an entire publication.



3.9 Expiry and Validity Tab

Here you set the date from which your document is no longer available to the customer to use, and specify how often your customers must connect to the administration (licensing) server to verify license controls.

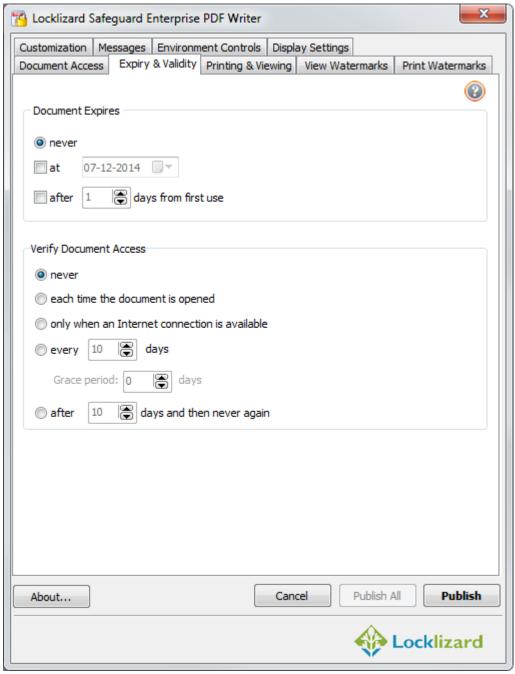


Diagram 22: Expiry and Validity tab

3.9.1 Document Expires

The date, or number of days, from which the document is no longer available to use. You can choose both an expiry date AND a number of days from first use, and whichever option is reached first will cause document expiry.

3.9.1.1 Never

Select this option if you do not want the document to expire. The document continues to be viewable even after the customer account expires. This is typically used for a book.

3.9.1.2 At (Date)

Select this option if you want the document to expire on a specific date. Select the date you require from the pull-down calendar list box. As soon as this date is reached the document can no longer be viewed, regardless of how long the customer account is valid for.

Please see <u>Chapter 12</u>, <u>Time and Date Controls</u> for further information on how document expiry is calculated with respect to UCT time.

3.9.1.3 After n days from first use

Select this option if you want the document to expire after a number of days since it was first viewed. This option is useful for giving away timelimited trials of your documents.

Select the number of days you require or enter a value in the box. As soon as this value is reached the document can no longer be viewed, regardless of how long the customer account is valid for. The time the document is first opened is also taken into account, so if you set expiry to be 1 day and the document is opened at 3.30pm, then it will not expire until 3.30pm the next day.

NOTE: Internet connection required

If you choose this option, then the **first time** your customers view the document they must be online to the Internet.



3.9.2 Verify Document Access

This section controls how often your customers must check with the Administration / licensing server to verify their license.

3.9.2.1 Never

Your customers never have to connect to the Administration server in order to view this document. The document can therefore always be viewed off-line and no connection to the Internet is ever required. This is an appropriate setting for a book or magazine. Selecting it means that you cannot revoke access or alter end dates for documents because your changes will never be checked by the Viewer.

Please see <u>Chapter 8</u>, <u>Offline Use</u> if you intend to use this setting and especially if you intend to protect your documents to publications.

NOTE: Viewing a document for the first time

The first time your customers view a document (or the first document in a publication), the Viewer software always connects to the server to obtain the decryption key (this operation is transparent to the user). Subsequent checks with the server however are not made if this option is selected.

3.9.2.2 Each time the document is opened

Your customers must be online in order to view and use your document. Before they can view the document they will need to let the Viewer software connect to the Administration server (this operation is transparent to the user) to verify their continuing access rights.

This means the document can never be viewed off-line (without an Internet connection) and this may cause user/customer inconvenience.



NOTE: Forcing server connections and revocation

By forcing your customers to connect to the server for every access you can perform instant user or document revocation, and ensure documents are only viewed from approved locations (if Restrict IP has been implemented). Revocation and document usage restriction will only work if the document is required to check with the administration server before it is opened. If you selected every *n* days you can only perform revocation after *n* days have elapsed.

3.9.2.3 Only when an Internet connection is available

If you select this option, then the Viewer will check with the Administration server if an Internet connection is available.

This is the most flexible choice since most users will be connected to the Internet so checks will regularly take place, but it does not enforce a connection if one is not available.

3.9.2.4 Every n days

The value you select or enter here determines how many days your customers can stay offline before they need to connect to the Administration server in order to view your document again.

Once this time period has elapsed they will not be able to use the document again until they let the Viewer software connect to the Administration server to validate their license. You may select this option if you need to be able to suspend customers using publications when they have not paid their subscription.

3.9.2.5 Grace period

This feature is available if you have selected check license after n days. It has the effect of extending the allowable time for the mandatory license check that you have just specified to take place.



It would be used, for instance, if your documents are being used by someone who is often out of the office (a VP, a trainer, a consultant and so on) and they cannot always get an Internet connection whenever they want.

So what happens is that the Viewer will still look for an Internet connection when the check license after n days happens, but if you have set a grace period, and if it cannot find an Internet connection, it will warn the user that a mandatory check is required within n days, and it will then make the document available until the grace period has run out.

Once the grace period has expired, the document will not open until a license check has been carried out, when the control will reset.

So this control can be used to provide additional flexibility for enforced license checking when that is appropriate.

3.9.2.6 After n days and then never again

Your customers have to connect to the Administration server after the number of days you specify here.

Selecting this option means that on or after the number of days that you specify, the customer must connect to the server in order to have their license details verified. After this connection, they will not have to connect to the server again for this document.

This feature is useful where you have given credit terms to a customer and need the opportunity to revoke access to the document if they have not paid you. For example if you give your customers 30 day credit you might want to set it at 45 days giving you time to revoke their license in the event that you have not been paid.



3.10 **Printing and Viewing Tab**

Here you control whether your product can be printed, and if so, how many times. The number of views can also be controlled from here, and you can enable document auditing for views and prints.

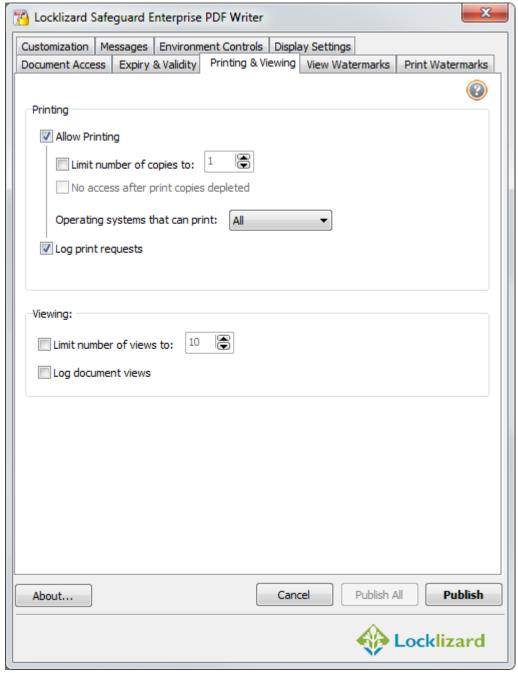


Diagram 23: Printing and Viewing tab

3.10.1 Printing

3.10.1.1 Allow Printing

Check this box if you want to allow the document to be printed.

Users are automatically prevented from printing to Adobe distiller and other typical print-to-file drivers.

Be aware that if you do enable printing, your customer is able to print a high quality copy which they can scan and read back in using OCR technology to produce a PDF version of your document. It is therefore advisable that you also apply a watermark on printouts – see watermark settings for additional information.

3.10.1.2 Limit number of copies to

If you want to limit the number of copies customers can print then check this box and enter the number of copies allowed in the scroll box.

NOTE: Internet connection required

If you choose this option then your customers must be online to the
Internet when they print the document in order to have the number of
copies printed checked and reduced accordingly.

If the customer requests more print copies than are available, then the number requested is reduced to the maximum number still available. If the customer cancels a print after authorization then the print count is still reduced as if they had actually printed all the copies in that print command (print cancellation is a system action and therefore cannot be monitored by Locklizard).

The number of copies is related to the number of times the user presses the print button, and not the number of pages a user prints. If a user therefore only prints three pages of a fifty page document the print count is still decremented by one.

If you want to protect a document that does not have printed allowed for all customers, but you later want to allocate prints to individual



customers on a per user basis (for example they paid extra for a document where printing was allowed), then select this option and leave the print value at zero. You can then change this value at a later date on the administration system on a per user basis.

NOTE: Changing the number of prints allowed

The print count can be changed on the admin system on a per customer /
per document basis if a customer later requires additional print copies.

See change number of prints for additional information.

3.10.1.3 No access after print copies depleted

This feature is used when you wish to stop all access to a document once it has been printed a specific number of times.

If you check this box, then after the allocated number of print copies has been used, the user will no longer be able to open the document for future viewing.

Note that this option is only available if the number of print copies has been limited.

3.10.1.4 Operating systems that can print

From this pull-down box you can select whether printing is allowed based on the operating system the Viewer software is installed on.

You may for example, want to allow printing on Windows OS but not on the Mac OS, due to the fact that the Mac Viewer does not prevent printing to file drivers - hence your documents could be made into PDF files using Acrobat distiller, and print watermarks are not supported. See Mac Viewer limitations.

If you select the 'All' option then printing will be allowed on both Windows and Macintosh operating systems. We do not recommend the use of the All option.



3.10.1.5 Log print requests

Select this option if you want to log every time a customer prints the document.



IMPORTANT NOTE: Internet connection required

Selecting this option will force an Internet connection each time the document is printed regardless of other settings. Users must therefore be connected to the Internet in order to print the document.

3.10.2 Viewing

3.10.2.1 Limit number of views to

You may limit the number of times customers can view your documents by checking this box and entering the number of views that you are allowing in the scroll box.

NOTE: Internet connection required

If you choose this option then your customers must be online to the
Internet when they view the document in order to have the number
checked and reduced accordingly.

Depending on your business model there are different reasons for choosing this option. Publishers may wish to offer prospective customers the opportunity to use their product enough to make them feel they want to buy it. In a corporate environment, you may wish to make sure that individuals can only see documents on a very limited basis, for instance, may be once or twice simply to verify the content.

You may also want to use this option in conjunction with an expiry date or expiry *n* days after first use. The document will then no longer be available for use depending on the expiry option that is reached first (i.e. 10 views or after 5 days of use).



NOTE: Changing the number of views allowed The view count can be changed on the admin system on a per customer per document basis if a customer later requires additional views. See change number of views for additional information.

3.10.2.2 Log document views

Select this option if you want to log every time a customer views (opens) the document.

This may be used to log that the user has indeed opened the document although it is not proof that they have actually read it.



IMPORTANT NOTE: Internet connection required

Selecting this option will force an Internet connection each time the document is viewed regardless of other settings. Users must therefore be connected to the Internet in order to view the document.



IMPORTANT NOTE: PRINT AND VIEW ALLOWANCES

The number of prints / views allowed is applied at the Customer account level, and not at the license level. Each time a customer prints / views a document restricted in this manner, the count on the Customer account on the Administration server is decremented by 1 (or the number of print copies requested).

So if for example, you have only allowed 3 prints for a specific document, once the customer has printed that document 3 times, they will be unable to print any more copies. This is true even if you have given that customer more than one license for their account, enabling them to print the document on more than one computer. If they have already printed the document three times on the first computer, then there are no print allowances left for use on the second computer. The same is true for views of a document.



Watermark Tabs 3.11

Here you specify if you want image and/or text watermarks displayed and/or printed on protected documents.

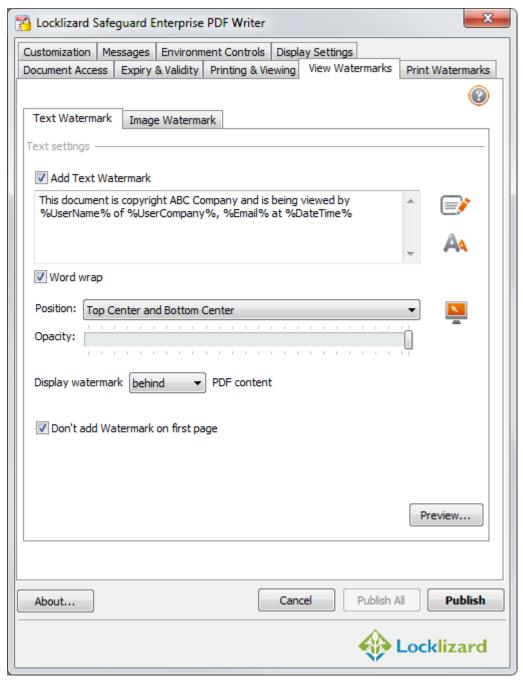


Diagram 24: View Watermarks Settings tab

Watermarks can be displayed on viewed and/or printed documents. Both text and image watermarks are supported. These are displayed when a document is printed and/or viewed in the Viewer software.

You might want to use Safeguard Enterprise watermarks rather than applying a watermark to the original PDF document since you can display user and system data dynamically (username, company name, date/time stamp) on the protected content.

Watermarking can be a complex subject. There are two general types of watermark.

First are the 'obvious' watermarks, such as the identity of both the user of the document and that of the publisher (and, perhaps the time and date of viewing/printing). These correspond to the visual watermarks on banknotes. Seen in daylight they are obvious. Equally since they are obvious it might be possible to exclude them from a scanned image. But on electronic documents it may also be that visible watermarks detract from the visual appearance of the work being sold. This can be a matter of artistic judgment that is up to you as the publisher.

The second type are 'subtle' watermarks that put an underlying pattern on a printed document which does not disturb the human eye seeing the image, but does upset Optical Character Recognition (OCR) products.

We support both kinds of approach, so that you can choose which approach is going to be most appropriate (or both, if you wish). Whilst we do not have any opinion as to the most suitable background image you might wish to implement if you propose to use the second type of watermark, depending upon the specific type of document you are publishing.

According to Wikipedia, "In graphic arts and prepress, the usual technology for printing full-color images involves the superimposition of halftone screens. These are regular rectangular dot patterns—often four of them, printed in cyan, yellow, magenta, and black. Some kind of moiré pattern is inevitable, but in favorable circumstances the pattern is "tight;" i.e. the spatial frequency of the moiré is so high that it is not noticeable. In the graphic arts, the term moiré means an excessively visible moiré pattern. Part of the prepress art consists of selecting screen angles and halftone frequencies which minimize moiré. The



visibility of moiré is not entirely predictable. The same set of screens may produce good results with some images, but visible moiré with others."

You can download variants of moiré fringe patterns from our web site http://www.locklizard.com/Images/moire-images.zip. Some of them have been selected from inkjet and laser printer patterns, as patterns revealed through analysis of the technique they have used to create print images. We cannot guarantee that these patterns will prove universally successful at preventing pirates from printing an image and then scanning it with a high rate of success. However, watermarks of this type are, in our view, much more likely to cause problems with scanning systems than are normal pictorial images. We recommend that publishers evaluate the patterns and methods that are most suitable, artistically, for their own products.

Watermarking options available in the GUI are described below:

3.11.1 View Watermarks Tab

Select options in this tab if you want a watermark displayed when the document is viewed. The watermark is applied to each page that is viewed.

3.11.2 Print Watermarks Tab

Select options in this tab if you want a watermark displayed when the document is printed. The watermark is applied to each page that is printed.

This is a recommended option to use if you allow your customers to print your documents. It provides them with a usable copy to work from, but does not create a situation where they can readily print and then copy or scan your documents to PDF format without the watermark being present.

The options available for both viewed and/or printed watermarks are the same, but the settings you apply may be different for each selection.



3.11.3 Text Watermark

Select options in this tab if you want a text watermark to be shown on the document.

Check the 'Add Text Watermark' box and then in the field below type in the text you want displayed (up to 255 characters in length). In addition to adding custom text, you can also add dynamic system variables (user name, company name, publisher name, and date/time), and these are described below.

3.11.3.1 System Variables

Dynamic system variables can be inserted anywhere in your custom text by selecting the button at the point where you want the system variable inserted and then choosing the variable you want to insert. System variables are replaced by information taken from the Viewer keystore when the watermark is displayed. You therefore only need to protect a document once to provide custom watermarked text that is unique to each individual licensed user.

User name: Displays the registered user name (this is the name of the user authorized to view the document).

User company: Displays the company name (if available) of the registered user (this is the company name displayed on the administration system for this user).

User email: Displays the registered user's email address.

Date and time: Displays the current date/time taken from the customer's computer (this will be the date/time when the document is viewed and/or printed).

Date: Displays the current date taken from the customer's computer (this will be the date when the document is viewed and/or printed).

Publisher: Displays your company name and email address (this is the publisher name displayed at the top of the administration system).



3.11.3.2 Font Settings

Select the A button to specify the font size and type, color, background color and background transparency that you want to use.

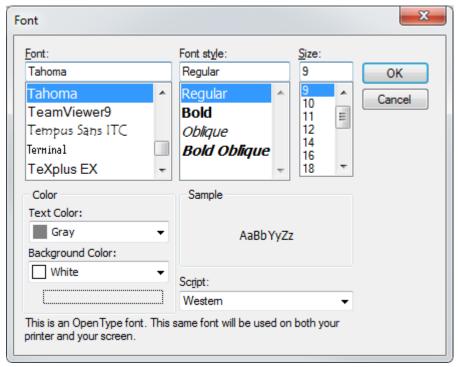


Diagram 25: Watermark font settings

Note: Selection of Transparent background

Most likely you will want to select the 'Transparent background' checkbox because visually you may not wish to have a white background as well as the visible text masking the PDF Content.

3.11.3.3 Word wrap

Check this box (the default) if you want text to be displayed without any hard carriage returns. If you do not check this box then each field will be displayed on a separate line. If you have added your own carriage returns then these will be ignored if you select this option.

Note: Word Wrap and text positions

Word wrap is not available if you select the text position "across the page"

or "continuously repeated".

3.11.3.4 *Position*

Select from the pull-down box the location(s) on the page you would like the text displayed. If you choose the 'random places' option then the watermark will be placed in a different location on each page of the document.

3.11.3.5 Custom Positioning of Text

Select this button to position the watermark text at a custom vertical location. Text can only be positioned vertically using this feature. This option is NOT available if you have selected the position option "across the page", "random places", or "continuously repeated".

3.11.3.6 Opacity

Select the opacity of the text (from completely visible to almost invisible) by sliding the control to the right or left. By default the text is completely visible.



IMPORTANT NOTE: TEXT OPACITY IS NOT RECOMMENDED

- 1) In order for printers to print transparent watermark text they must support Alpha Blending. Most printers support this but some do not. For this reason we recommend that you DO NOT use transparency in text watermarks unless you are using Safeguard Enterprise in a controlled internal environment where you are sure that all printers support Alpha Blending. The simplest solution is to use a different colored font (say a grey color) for the watermark text to ensure that it is always printed.
- 2) If opacity is selected, then the more watermark text you use the slower the page rendering will be in the Safeguard Viewer, and the slower printing will be. For this reason it is recommended that you use as a maximum one line of text. Reduce the font



size if necessary to minimize the amount of text used.

3) If a background text color is selected it is only displayed at full opacity and not otherwise.

IMPORTANT NOTE: Text opacity is NOT supported for text positioned across the page and for continuously repeated watermarks - the opacity slider will therefore be disabled if the watermark text position is set to either of these settings.

3.11.3.7 Display Watermark 'on top of / behind' PDF Content

Select from the pull-down box whether you would like the watermark text displayed on top of the PDF content or behind it.

If you select the 'on top of' option then the text will obscure the PDF content. If you select the 'behind' option then the PDF content will obscure the text of the watermark. Behind is more conventional.

3.11.3.8 Don't add Watermark on first page

Check this box if you don't want a watermark to be displayed on the first page of your document.

You may wish to select this option when the first page is the cover page and for presentational purposes you don't want it watermarked.

Press the Preview... button to see what the text watermark will look like when the document is viewed and/or printed. Please note that text opacity settings will always be shown at full opacity on the preview screen.



3.11.4 Image Watermark

Select options in this tab if you want an image watermark to be shown on the document.

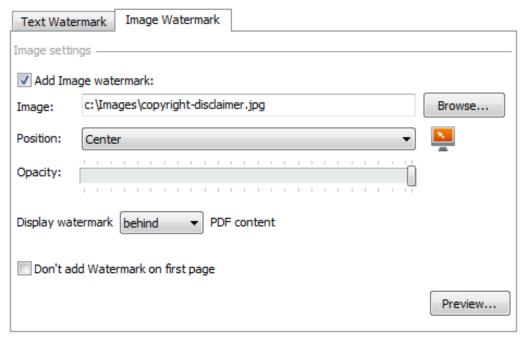


Diagram 26: Watermark image settings

Check the Add Image Watermark box and then select the Browse... button to select a **JPG** or **PNG** image.

3.11.4.1 Position

Select from the pull-down box where on the page you would like the image displayed.

3.11.4.2 Custom Positioning of Image

Select this button to position the watermark image at a custom location (this can be at any position on the page).

3.11.4.3 Opacity

Select the opacity of the image (from completely visible to almost invisible) by sliding the control to the right or left. By default the image is completely visible.

3.11.4.4 Display Watermark 'on top of / behind' PDF Content

Select from the pull-down box whether you would like the watermark image displayed on top of the PDF content or behind it.

If you select the 'on top of' option then the image will obscure the PDF content. If you select the 'behind' option then the PDF content will obscure the image.

3.11.4.5 Don't add Watermark on first page

Check this box if you don't want a watermark to be displayed on the first page of your document.

You may wish to select this option when the first page is the cover page and for presentational purposes you don't want it watermarked.

Press the Preview... button if you want to see what the image watermark will look like when the document is viewed/printed. Please note that image opacity settings will always be shown at full opacity on the preview screen.

You may wish to publish your documents and then view/print them in order to change the Opacity parameter to reflect a suitable image for viewing or for printing. You may need to experiment with the combination of these parameters to arrive at a combination that is artistically suited to your own requirements. This may vary from document to document depending on the content.



3.12 Publishing your PDF document(s) securely

Once you have chosen all the settings you require on each tab, you can complete the secure publication of your PDF file(s), by clicking on the

Publish button.

A Protection Status dialog is displayed showing you the file(s) that were processed.

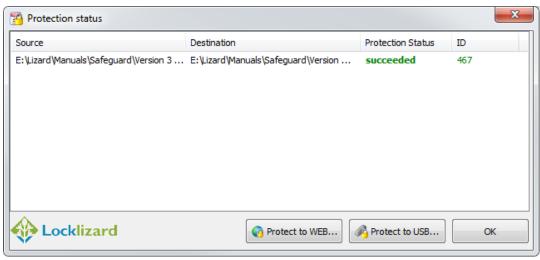


Diagram 27: Display Settings tab

Note: From this dialog you can quickly launch the <u>Protect to Web</u> and <u>Protect to USB</u> applications (paid add-ons) with the files you have just protected already selected.

A secure copy of your PDF file is created with a new file extension, .PDC. For example, License.pdf becomes License.pdc.

The file icon for the .PDC file changes to the following one ¹⁶ to let you know it is now a protected file.



3.13 Protecting multiple PDF files

To protect and publish more than one document, highlight up to 25 PDF files you want to protect in Windows File Explorer, right-click and select 'Make secure PDF' from the context menu.

Document controls (print, copy content, etc) are applied to all the selected documents from the one screen in one of two ways.

You can either choose to publish only one document at a time ('Publish' button), or to publish all the documents with the same settings ('Publish All' button).

If you select the Publish All button, then exactly the same document controls you select for the first document will then be applied to all the other documents you have selected. The document title will always default to the name of the PDF file, so for example if you protect a PDF file with the filename salesreport.pdf then the document title will default to salesreport. It is NOT possible to change this once you have protected the documents.

NOTE: Publish All button

The 'Publish All' button is grayed-out unless multiple files have been selected for protection.

If you select the Publish button, then after protecting the first document, the tabbed dialog is displayed again for each subsequent document, so you can choose a new set of document controls for subsequent documents. This process continues until all of your documents you selected are protected.



3.14 Protecting multiple PDF files from the Command Line without user intervention

You can protect multiple PDF files without user intervention by using the Safeguard Enterprise Command Line utility. This is available for separate purchase from Locklizard.

Using the command line utility you can incorporate protection of PDF files into your batch files, and call these from other applications, either by issuing DOS commands or through SHELL, without needing to use an API.

A separate user manual is provided, setting out in detail the commands, how to format them, and giving examples of usage. This can be downloaded from http://www.Locklizard.com/Safeguard-CommandLine.pdf



3.15 Changing Document Expiry

If you publish a document with a fixed expiry date then you can change this date at a later stage. Documents protected with no expiry, or expiry after n days from first use, cannot have their expiry settings changed.

However, you are able to alter the document access rights at the time it is allocated to a customer or even after that (on a per customer basis), using the 'Set Document Access' option from the customer account. You can change the start and end access dates, or allow unlimited access. You can also use this feature to revoke access to a document.

For more information on using this feature please see Direct Access to Documents in the 'Showing & Administering Customer Accounts' section of this manual.



NOTE: User access revocation and server checking

User access revocation to a publication or document will ONLY work if the user is required to check with the Administration server before they can use the document (this may be set to every use or every 'n' days, (if the latter then revocation may not be instantaneous), or if the user has not yet licensed the document.



Chapter 4: **The Administration System**

The Administration system, also referred to as the licensing system, is where you administer your documents, publications and customers. This may be hosted on your own server or hosted by Locklizard.

Once you have secured your PDF files it is a simple matter of setting up your customers on the Administration system (customer name or identifier, email address and company (optional)) and allowing them to use one or more of your publications or documents. Your documents will then be accessible to the customers that have been authorized to use them.

The Administration system lets you:

- Manually enter customer data;
- Import existing customer data (perhaps from an accounting system);
- Automatically enter customer data using the Safeguard eCommerce module;
- Administer customers, documents, and publications;
- Export customer data, documents, and publication records;
- View statistics and generate reports;
- Change email settings and license delivery;
- Backup and restore the entire system or individual sections;
- Logon and logoff.

The eCommerce module enables you to integrate Safeguard Enterprise with your eCommerce system for a totally automated secure document distribution service. Once your customers pay for a document or publication then their details can be automatically set up on the Administration server and assigned the appropriate publication / document access rights, ensuring a 24x7 service. This saves you from manually having to create customer accounts. For more information please see http://www.Locklizard.com/product-add-ons.htm.



To use the Administration system, left click on the Windows Start menu and select All Programs > Locklizard > Safeguard > PDF Writer Enterprise > Administration System.

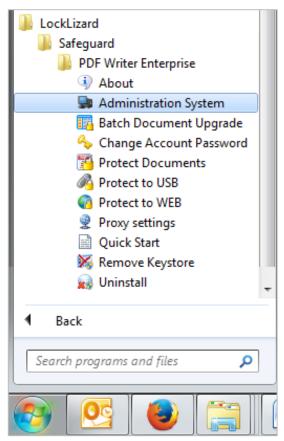


Diagram 27: Locklizard Administration System Context Menu

NOTE: Internet connection is required

You must have an active Internet connection if you are connecting either to the Locklizard Administration servers or to one of your own web servers. If the Administration server is located on your internal network then you will need access to it through the local network.

When you click on this option it automatically opens up the web administration page as shown below.



Diagram 28: The Administration System logon

Enter your username and password in the fields provided and then press the button. Your username and password can be found in the Safeguard Writer Registration email that was sent to you when your publisher account was created unless the password has subsequently been changed.

On successful logon the Administration System is displayed as shown below.

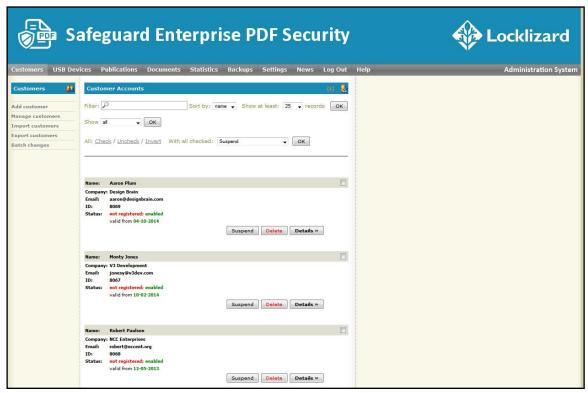


Diagram 29: The Administration / Licensing System



NOTE: Number of records displayed per page

To ensure records are displayed quickly, only 25 records are displayed at a time on each admin page. You can alter the number of records displayed using the pull-down box labeled 'Show at least *n* records' at the top of the page. Next and Previous navigation options are displayed at the bottom of each page if you have more than 25 records available.

You can logout of the Administration System at any time by selecting the 'Log Out' tab. You will then be returned to the Administration System logon screen.

Each tab of the Administration System is now described in more detail.



4.1 Customers

The administration functions provided are:

- Create customer accounts:
- Import and export customers;
- View all customers you have created accounts for;
- Add extra customer licenses;
- Search for customers;
- Delete customers;
- Delete ALL customers;
- Suspend customers;
- Change customer account validity dates;
- Batch change customer accounts;
 - o add extra licenses to all customers simultaneously
 - o change customers validity (expiry date) for all customers
 - o resend registration email to all customers
 - grant document(s) access to all customers
 - o grant publication(s) access to all customers
 - delete all customer accounts that have expired / suspended / not registered
- Edit customer account information (name, email, company, notes)
- Change the documents your customers have access to;
- Change the document expiry date for individual customers;
- Change the number of prints allowed on a customer/document basis;
- Change the number of views allowed on a customer/document basis;
- Change the publications your customers have access to;
- Re-issue license files;
- Suspend and activate licenses;
- See a detailed account view;
 - when the account was created
 - how many licenses are allocated to it



- when it expires
- when a customer registered (and with what IP and MAC address)
- what their username and password is
- the documents they are authorized to use
- the publications they are authorized to use
- whether they have tried to register Safeguard Viewer more than once (including attempts for unauthorized registration)
- if you allocated them additional licenses
- if you allocated them additional prints and views
- what documents they have viewed (if logging is enabled)
- what documents they have printed (if logging is enabled)
- whether an account is enabled or has been disabled
- the time/date on which each of those activities occurred.

4.2 Creating Customer Accounts

The next thing you should do in the Administration system after creating publications and protecting documents, is to create customer accounts (or import them).

Click on the 'Customers' tab and then the 'Add Customer' link.

When you create a customer account the customer is immediately emailed with the information needed to register their license for the document(s) and/or publication(s) that you have licensed them to use.



Diagram 30: Create Customer Account screen

Enter the appropriate details in the fields provided. The fields displayed in bold font are mandatory.

4.2.1 Name

The Name may be an internal reference that you use if that is more convenient than their actual name. The name you enter here is also used as the filename for the license file ("Customer name".llv), so that you and your users/customers are able to readily identify who the license is intended for.

Please note that you should avoid using any of the following characters as part of Name because they may be rejected by the file system of the operating system receiving the filename:

```
" (double quotes)
/ (forward slash)
\ (back slash)
[ (open square bracket)
(close square bracket)
: (colon)
; (semi-colon)
= (equals sign)
, (comma)
% (percentage sign)
? (question mark)
< (less than)
> (greater than)
$ (dollar sign)
' (single quote)
• (bullet)
```

If these characters are found to be part of the Name field they may be removed when the filename is created.

Please also note that embedded space characters are not removed (although they are removed from the filename for the associated zip file they remain on the underlying .llv file).

Whilst conventions regarding acceptable filename lengths suggest that the field Name could be 255 characters long, Microsoft advise that, "Even though long filenames can include up to 255 characters, network administrators will want to



encourage concise filenames among users who post files to network locations. Because a file's full path length can't be longer than 260 characters, administrators should discourage filenames over 75 characters." Further, the standard ISO9660 and the Joliet CD or Hybrid CD partition standards restrict filenames to a maximum of 64 characters, and may truncate and/or reject duplicate shortened names.

We therefore advise publishers to avoid entering more than 64 actual character positions in the Name field, in order to minimize potential problems with the administrative systems of their customers or internal IT departments.

4.2.2 Company

The Company field is optional, but you can enter a company name (up to 255 characters) if it is required for your own business purposes. If entered it may be used to search on.

4.2.3 Email

The email address that you enter here is where the registration information (license file and Viewer product download details) will be sent.

The email field is the unique identifier for a customer record and therefore only one customer account can exist for a specific email address. If you want a customer to have more than one account on the administration system then you must use a different email address for that account.

4.2.4 Licenses

Enter the number of licenses to be provided. The number you enter here determines how many computers users can use your protected documents on.

Licenses: 1



For example, a customer may need to install the Viewer on both their home and their work computers, in which case you would need to issue them with two licenses, so you would enter the number 2 here.

If you are licensing a company, they may have purchased more than one license and will want to be able to issue those licenses internally. Entering additional licenses here, therefore, saves you from having to create a separate customer account for each authorized individual in that company and leaves them with the responsibility of allocating the licenses correctly. However, be aware that users of that license will ALL have access to exactly the same documents, and their accounts will ALL expire at the same time, since they share a single customer account.

Each time a customer registers a license, the number of available licenses for their account is decremented by 1. If you originally set this field to 1 when you set up the customer account, when the customer registers, the licenses field reduces to 0. As a result, the customer will not be able to register using that license again. This stops customers from sharing their license code information with others, because they can only register the number of times that they have been licensed.

If a customer requires another license at any stage (purchasing an additional use perhaps) then you can of course enter a new value in this field so that they can register their license again.



NOTE: Re-using licenses

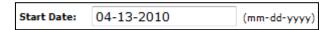
Safeguard Enterprise can be re-installed on the same computer without you having to issue your customers with an additional license.

When your customers re-register with the old license details, the Viewer software checks with the Administration server certain details and lets the license be re-used if it is on the same computer. However, if they rebuild a computer it may be necessary to issue them with an additional license.



4.2.5 Start Date

This is the day on which a customer account becomes available to use.



If you set this date to some time in the future then the customer will not be able to register the Viewer software until that date is reached.

The customer start date is also relevant to documents that are published to a publication. If documents that are part of a publication have a start date before the customer start date, then customers will still be able to view those documents **unless** you check the 'obey customer start date' for that publication.

Selecting this feature prevents customers from viewing documents that have been published to publications before their subscription period began. Some publishers however want their customers to be able to view all documents published to a publication (regardless of the customer start dates), so this is the default setting.

4.2.6 Valid until

Enter either a date when the customer account expires or select 'unlimited' if you do not want the customer account to expire.

4.2.6.1 Date

Enter here the date when the customer account expires. This may be the end of a subscription period, for instance.



When the expiry date is reached, the following will occur:



- For documents that were published with 'enforce an internet connection' set to 'each time the document is opened' they will no longer be accessible
- For documents that were published with 'enforce an internet connection' set to 'every n days' they will no longer be accessible once the validity check has taken place
- For documents that were published with 'enforce an internet connection' set to 'never' they will continue to be accessible
- If a customer re-registers their Viewer license after their account has expired then documents will no longer be accessible
- Any new documents you publish will no longer be accessible even if the customer has been granted access to the document or publication

If you provide subscription services, you may want customers to be able to continue to access documents they have purchased during the subscription period even after their subscription has ceased. If this is the case, you will want to set the customer account to never expire and instead control expiry to the publication(s). See Publication Expiry for more information.

4.2.6.2 Never Expires

If you choose the 'never expires' option then the customer account will never expire.

Expiry settings interact with the validity dates that are set on customer records. As a result, the rules have different implications depending upon the settings of both customer and document start and end dates, including 'never expire', which are summarized below.

Please be aware of the relationship of these settings when choosing start and end dates for both customers and documents.



	Customer Account expires	Customer account does not expire	Publication expires	Publication does not expire
Document does not expire	Document can be accessed until the customer account expires	Document can always be accessed	Document can always be used if it was published between the publication validity dates	Document can always be accessed
Document expires	Document can be accessed until it expires or the customer account expires (whichever comes first)	Document can be accessed until it expires	Document can be used until it expires (even if the publication access period has expired) provided it was published between the publication validity dates	Document can be accessed until it expires

Table 1: Document, Publication, and Customer Expiry



Start and Valid until dates can be changed whenever you want. However, the result of making changes on the Administration system will only have any effect if the customer has to check, at least periodically, with the server for authorization to use the document. If customers have been granted offline use, changes at the Administration server will have no effect because users / customers will never check with the server to update their authorities.

4.2.7 Notes

Here you can enter other information relating to the customer record.



4.2.8 Set Publication Access



Click on this link to select the publication(s) that you want this customer to be able to access (i.e. publications that this customer has purchased).

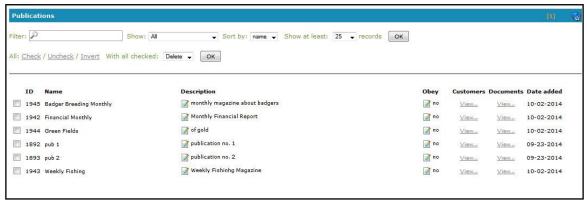


Diagram 31: Set Publication access

Select the publications you want to grant access to by checking the appropriate checkboxes next to the publication names. This will grant the user access to the publication with no expiry. If you only want to grant a user access to a publication for a set period of time, then once you have added the customer, you can edit the customer record to set the publication access period.

Any documents that are assigned to that publication will be viewable by this customer within the publication and customer validity dates. The customer will still have to be sent, or have made available for download, the actual documents before they can use them.

Clicking on the 'View...' link from the Customers column will show you which customers already have access to a publication.



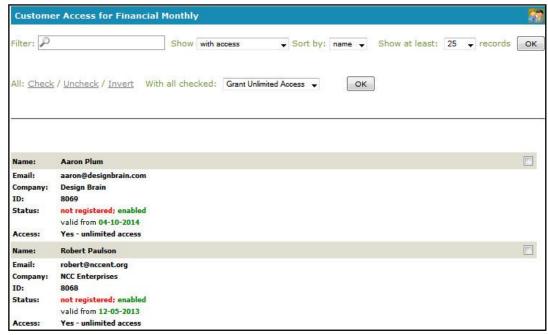


Diagram 32: Customers with publication access

Clicking on the 'View...' link from the Documents column will show you what documents were protected to a publication.



Diagram 33: Documents published to a Publication

4.2.9 Set Document Access



Click on this link to select the document(s) that you want this customer to be able to access (i.e. documents that this customer has purchased). You only need to select documents here if you want to grant individual document access to documents if they were not protected for all customers or to a publication.



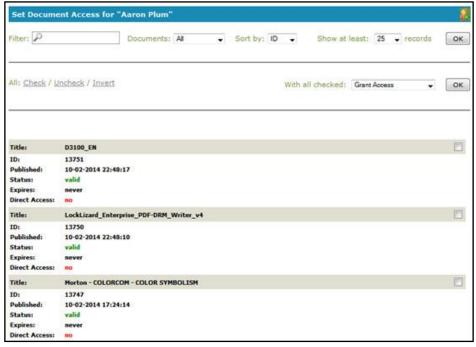


Diagram 34: Set Document access

Check the appropriate boxes to select the documents you want to grant access to. The expiry settings chosen when you protected the document will be used. Once the user has been added, you can change the expiry access period at a later stage by editing the customer record and selecting the 'Set Document Access' link.

4.2.10 Send Registration Email

Check this box if you want a registration email sent to your customer containing their license file.



You may want to uncheck this box if you are using the ecommerce interface and intend to distribute license files via a web page, or if you are using Lizard Safeguard as an internal solution, and do not want to email users their license files since installation and registration of the Viewer software is to be performed by system administrators.

On pressing the Add customer button, the customer account is created.

Registration codes (if the send registration email checkbox is checked) are automatically emailed to the customer using the email address you entered. The email also contains the download link for the free Safeguard Viewer software. See How Customers Use
Your Documents.

Now you are ready to send your protected PDF (PDC) files to users by email, or publish them on CD-ROM, removable media, etc. or from your web site.

4.3 Importing Customer Details

You may already have an established customer base (or user list), and need to import those records into the Locklizard Administration system. This information can be imported in a .csv format file (a spreadsheet format) containing the minimum details needed to satisfy the Locklizard system.

Click on the 'Import Customers' link.

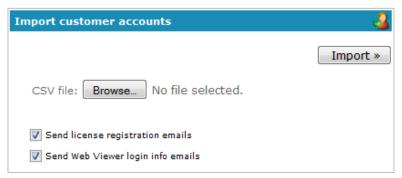


Diagram 35: Import Customer Accounts screen

The CSV file must contain on each line a customer account definition. Each row of the spreadsheet is a separate customer record. A sample CSV file showing you how the fields are laid out can be downloaded from www.Locklizard.com/downloads/sample_data.csv.

A sample PDF file showing you what each data field represents can be downloaded from www.Locklizard.com/downloads/sample data.pdf.

4.3.1.1 Send License Registration emails

Check this box if you want to send license registration emails to all of the customers you are importing.

4.3.1.2 Send Web Viewer login info emails

Check this box if you want to send Web Viewer login emails to all of the customers you are importing. This option is only relevant if you are giving access to the Web Viewer when importing customers.

Once you have browsed for the CSV file containing your customer information, press the Import » button to complete the process.

When the import has taken place a message will be displayed telling you how many customer records were imported. For each customer record that is imported, a customer account will be created and license files will be automatically emailed to each customer's email address.

Where errors have prevented the import of a customer record you will be notified of the record number(s) that failed and the reason for rejection.

If a customer record already exists with the same name and email address on the administration system, then the addition of that record is rejected.

Administering Customer Accounts 4.4

Here you can view and administer the customer accounts that you have already created or imported.

Click on the 'Manage Customers' link. This will display a list view of your customers.

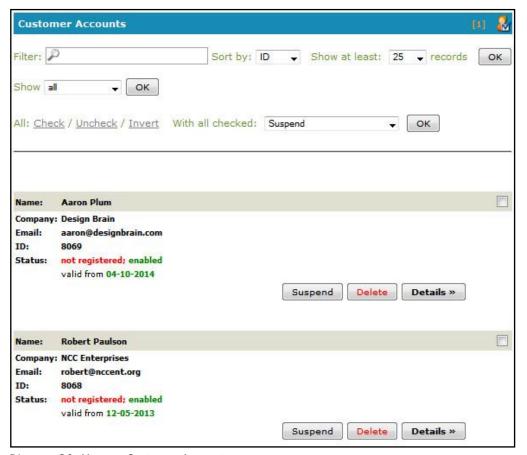
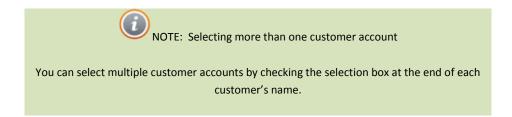


Diagram 36: Manage Customer Accounts screen



Customer Search and Sort options

Filter 4.4.1.1

In this field enter the name, or part of a name, or the company of the customer you want to search for. If you enter a single letter here then every customer record containing that letter will be displayed.



NOTE: Searchable fields

Searchable fields are the customer name, company name, ID, and email address.

To search by ID enter ID=n where n is the ID number of the customer.

4.4.1.2 Sort by

Select from this pull-down list box whether you want records displayed in name, date, or customer ID order. If you select 'name' then records will be sorted in alphabetical order. If you select date then records will be sorted in customer start date order (valid from date) with the newest entry first, and ID order shows the most recent ID first.

4.4.1.3 Show at least n records

Select from this field the number of records you would like to be displayed on each page. Bear in mind that if you select the 'All' option and have a large number of records to display, it could take a while to render this information to the screen and it may be difficult to manage.

4.4.1.4 Show

Select from this field the type of customer accounts you would like to be displayed. The options available are:

- All displays all customer accounts;
- Registered displays only customers that have registered;
- Not Registered displays only customers that have not registered;
- **Suspended** displays only customer accounts that are suspended;
- Expired displays only customer accounts that have expired.



4.4.2 With all checked

Select from this field the action you would like to perform on the selected customer accounts. You can select multiple customer accounts by checking the selection box at the end of each customer's name.

4.4.2.1 Suspend (Suspending a customer account)

There may be times when you need to suspend a customer's account. This may be because they have subscribed to your service but have not actually paid. Any documents that require a connection to the server will no longer be viewable if a customer's account has been suspended. Also, new documents that are published will not be usable. Customers cannot register if their accounts are suspended.



IMPORTANT NOTE: Suspension of customer accounts

Once you have suspended an account, then if the customer in question is accessing documents that required them to connect to the Administration server, those documents will no longer be viewable, since their account is suspended. If the customer in question is accessing documents that do not require them to connect to the Administration server then those documents will continue to be viewable by that customer regardless of server settings.

Once you have suspended a customer's account the text on the status field is shown as 'suspended' in red font

Status: registered at 04-12-2010 21:47:30; suspendent	and the	Suspend	button is
changed to an Activate button.			

4.4.2.2 Activate (Re-enabling a customer account)

Choose this option to re-enable (un-suspend) a customer's account. Once you have activated a customer's account the text on the status field is shown as 'enabled' in green font

and the Activate button is changed to a Suspend button.



4.4.2.3 Delete (Removing a customer account)

There may be times when you need to delete customer accounts from the system. This may be because you were testing the product and have accounts you no longer need, or it may be because they are no longer a customer/user and should not have continuing access to your documents or publications.



IMPORTANT NOTE: Deletion of customer accounts

Once you have deleted an account, then if the customer in question is accessing documents that required them to connect to the Administration server, those documents will no longer be viewable, since there are no records to authorize against. If the customer in question is accessing documents that do not require them to connect to the Administration server then those documents will continue to be viewable by that customer regardless.

This option is useful during testing situations when you may want to remove all customer test accounts. It may also be used when you wish to synchronize a membership system once a quarter/year rather than reconcile your own CRM system with the Locklizard Administration system. If you choose to do this, then please be aware that new licenses will be automatically issued to all the customer records that you then add when bringing the systems into line, and that your customers will have to register their new license files because their current ones will no longer verify.



IMPORTANT NOTE: Deleted accounts cannot be recovered

Please be careful when using the delete option as customer accounts are not recoverable once they have been deleted.

4.4.2.4 Grant access to publication

Select this option to grant customer access to a single publication. This will then display the 'Select Publication' link which you must select in order to choose the publication you want to grant access to.



Diagram 37: Grant Publication Access

Check the boxes next to the publication names you want to grant access to and then press the OK > button.

This will return you to the Customer Tab where you then need to select the OK button next to the 'Grant access to publication' as shown below:



On pressing this button a confirmation dialog will be displayed to confirm the granting of access.



Press the **GRANT ACCESS** button to grant access to the publication.

The access you grant here is with no expiry (access to the publication does not expire). If you want to grant limited access to a publication or revoke access to a publication then you must to this from the main Publications Tab or by using the 'Set Publication Access' link on each customers individual record (Customer Tab).

4.4.2.5 Grant access to document

Select this option to grant customer access to one or more documents. This will then display the 'Select Document(s)' link where you can choose the documents you want to control access to.

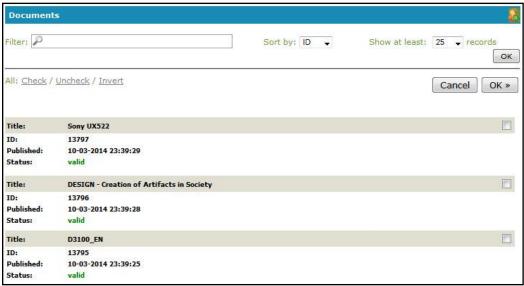


Diagram 38: Set Document Access

Select the document(s) you want to grant access to by checking the appropriate boxes next to the document title and then press the button.

This will return you to the Customer Tab where you then need to select the OK button next to the 'Grant access to document' as shown below:



On pressing this button a confirmation dialog will be displayed to confirm the granting of access.



Press the GRANT DOCUMENT ACCESS button to grant access to the document(s).

The access you grant here uses the original expiry settings you chose when you protected the document. If you want to change these settings for specific customers then you must to this from the main Documents Tab or by using the 'Set Document Access' link on each customers individual record (Customer Tab) as shown in Diagram 38 below.

4.4.3 Customer Details

You can view and edit the details of individual customer accounts by selecting the Details button that is displayed on each customer account record. Customer information is then displayed in the right-pane, and editable fields may be changed. The Name, Email, Company, Notes, Licenses, Start Date, and Valid until Date fields are all editable.



Diagram 39: Customer Account details

4.4.3.1 Name & Email

Name:	Ben Charmers
Email:	bcharmers@bluebell.com

The Name and Email fields are used to identify who the customer is.

The email field is the unique user identity. You cannot have more than one user account with the same email address.

4.4.3.2 Company



If you have entered a company name then it is displayed here.

4.4.3.3 Notes



If you have entered any notes then they are displayed here. They are not used elsewhere in the system. Notes can be created, modified, and deleted.

4.4.3.4 ID



This field is for information purposes only and can be used in conjunction with the ecommerce system to identify a customer account since actions are performed using the Customer ID rather than the customer name/email. You may also find this field useful internally to distinguish individual customer accounts.



4.4.3.5 Status

Status: not registered; enabled valid from 02-19-2010

This field shows if, and when, a customer has registered their license, and whether their account is enabled or suspended. The valid from date shows when the customer account was created. The text on the status field is displayed in red for unregistered accounts and green for registered accounts.

4.4.3.6 Start Date

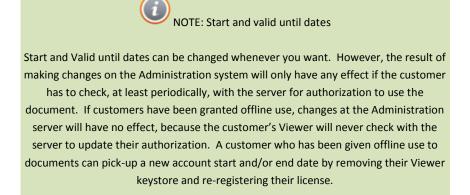


You may want to change the start date of a customer account in order to give the customer access to back issues of publications.

4.4.3.7 *Valid Until (End Date)*



You may want to change the end date of a customer account in order to grant them continuing access to documents and publications. This may be because they have purchased another year's subscription.





Customer account expiry is totally different from document expiry.

For a more detailed description of the interaction between customer account and document expiry please see Table 1. Make sure that the change you are requesting will actually affect customers in the way that you anticipate.

4.4.3.8 Restrict IP



Here you can enter an IP address or a range of addresses from which a user can register their license from and also use a secure PDF document.

If a user tries registering from an IP address outside this range then then they will not be able to register.

If a user registers their license on say a laptop from an approved IP address range (for example an office location) and then takes their laptop home, they will not be able to view your secure documents as long as the document controls are set to check with the administration server (verify document access=each time the document is opened). If offline use has been allowed (verify document access=never) then users will be able to view documents they have previously opened since the decryption keys will be available to them and the Viewer is not requested to check with the server to see what location the documents are being opened from.

This feature can be used in conjunction with the global restrict IP settings, Settings Tab > Restrict IP (that applies to all users), to enable specific users to register and use documents outside of the IP address range specified at the global level. For example, despite having restricted registration and use to your internal employees at a global level, you may want a third party outside of your organization to be able to register their license and view your secure documents. The IP address(es) you enter here takes priority over those specified globally.

4.4.3.9 *Licenses*



Here you can change the number of licenses that have been allocated to a customer (you can add or remove licenses). Enter the number of licenses that you want to make available in the licenses field. The default value is 1.

You may want to allocate customers extra licenses if you decide to let them view your documents on more than one computer. Also, you will have to allocate your customers additional licenses if they change computers, as they will have to re-install the Safeguard Viewer software on their new computer and re-register with you. See Changing Computers.

Regardless of the number of licenses you have given your customers, they will always register the Viewer using the same license file (so they are not sent additional license files even if they have been allocated additional licenses). The license count is decremented by one on the server each time your customers register on a new computer. Re-registering the Viewer software on a computer that was previously registered does not decrement the license count – see also Upgrading Computers. Please recall that global controls such as number of views and number of prints apply at the customer level and not at the installed license level.

4.4.3.10 License: Save License to File



Since the email is sent by an automated server, some SPAM filtering systems may block this and prevent the email from getting through. If this happens you will have to re-issue the customer license manually. Click on the 'Save license to file' link in order to save their license file to disk. You can then manually email the file to your customer, or if you are using the system internally, save it to a network drive for later use.

4.4.3.11 Resend: Email License File



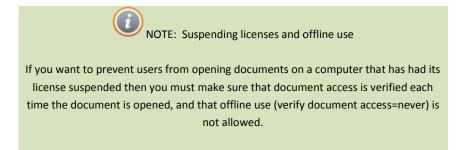
Select this checkbox if you want the registration email to be resent to your customer. You might want to select this option for example if a customer said they did receive the registration email but deleted it by mistake.

4.4.3.12 Device: Suspend or Activate License



Here you can suspend or enable individual licenses effectively enabling the transfer of a license from one computer to another.

You may want to do this for example if a user wants to transfer their license to a new computer because they are no longer using their old one. Suspending a license will prevent the user from re-registering that license (license re-use), and depending on your document access settings, prevent the user from continuing to view documents on that computer.



On selecting the link, the following dialog is displayed from where you can select the individual licenses that you want to suspend or enable:

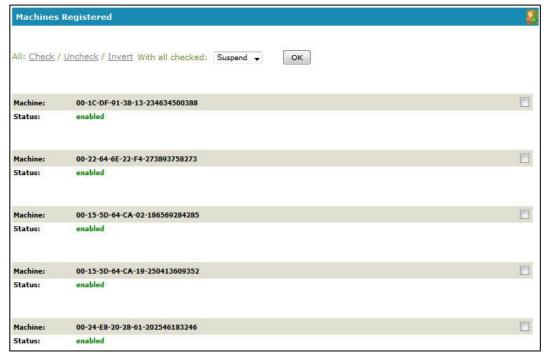


Diagram 47: Suspend and enable licenses

4.4.3.13 Web Viewer

If this add-on is enabled on your account then refer to the Safeguard Web Publisher manual Chapter 5 for an explanation of these features.

4.4.3.14 Set Publication Access



Select the 'Set Publication Access' link to grant or revoke access to one or more publications. The following dialog is displayed:



Diagram 40: Set Customer Publication Access

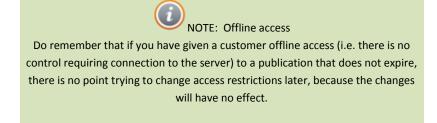
From the 'With all checked' pull-down list box, select the customer access interval for the publication.

- Grant Unlimited Access grants access to the publication with no expiry. Select this option if you do not want access to the publication to expire.
- Grant Limited Access grants access to the publication with expiry. Select this option if you want access to the publication to expire. If you choose this option then the date range fields will appear where you can enter a start and end date for accessing the publication (see diagram 37). The dates you enter here will determine the time frame that this publication is made available to this customer and override settings made when the publication was created.



Diagram 41: Grant Limited Access (publication access date range)

Any documents that are assigned to that publication will be viewable by this customer within the publication and customer validity dates. The customer will still have to be sent, or made available for download, the actual documents before they can use them.



■ **Revoke Access** - revokes access to the publication.



IMPORTANT NOTE: Revoking publication access

Once you have revoked access to a publication, then if the customer in question is accessing documents that required them to connect to the Administration server, those documents will no longer be viewable, since there are no records to authorize against. If the customer in question is accessing documents that do not require them to connect to the Administration server then those documents will continue to be viewable by that customer regardless. If the customer has not yet viewed a document published to the publication you have revoked then they will not be able to access it.

Once you have made your changes press the button.

You can see what customers have already been granted access to a publication by clicking on the View... link in the Customers column.

Similarly, clicking on the View... link in the Documents column will show you what documents have been published to a publication.

NOTE: Whenever you add a new publication to your publications list it automatically becomes available for allocating to all current customers. If you want a current customer to be able to receive the new publication, select the 'Set Publication Access' link and choose the publication(s) you want to grant access to. It doesn't matter when publications are created, because as soon as they exist you can allocate them to customers. The customer will still have to be sent the actual documents (or have them available for download) before they can use them. When you add a publication to an existing customer they will only be able to use documents in that publication that were created inside the customer validity period if the publication has the 'obey start date' option checked. You can continue to add existing documents to new publications at any stage.

4.4.3.15 Set Document Access



Click on 'Set Document Access' link to grant or revoke customer access to one or more documents. The following dialog is displayed:

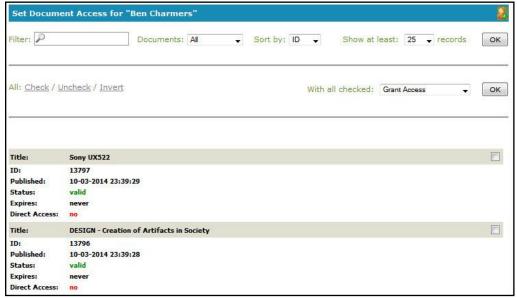


Diagram 42: Set Document Access

Even though you may have previously set document expiry when you published a document, you can change document expiry here on a percustomer basis. You may want to do this, for example, to give certain customers time-limited viewings of some of your documents.

Select the document(s) you want to grant access to. From the 'With all checked' pull-down list box, select the customer access interval to the document(s). Do remember that the option you choose here overrides the original settings.

- Grant Access grants access to the document(s) using the original expiry settings you chose when you protected the document.
- Grant Unlimited Access grants access to the document(s) with no expiry. Select this option if you do not want access to the document to expire.

• Grant Limited Access - grants access to the document(s) with specific start and end dates. Select this option if you want access to the document to expire on a specific date. If you choose this option then the date range fields will appear where you can enter a start and end date for accessing the document (see diagram 43). The dates you enter here will determine the time frame that this document is made available to this customer.

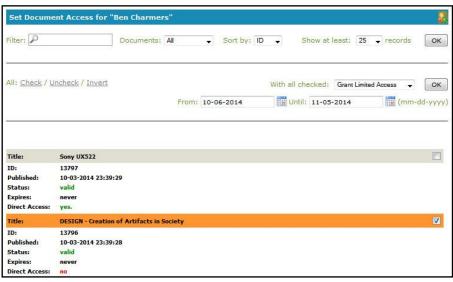
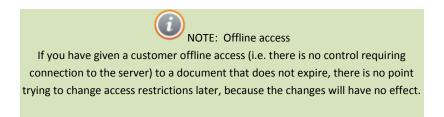
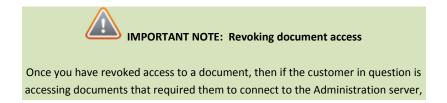


Diagram 43: Grant Limited Access (document access date range)

Do remember that if you chose the 'Grant Limited Access' option then the dates you enter will override your original settings.



Revoke Access - revokes access to the document.



those documents will no longer be viewable, since there are no records to authorize against. If the customer in question is accessing documents that do not require them to connect to the Administration server then those documents will continue to be viewable by that customer regardless. If the customer has not yet viewed the document you have revoked then they will not be able to access it.

Once you have made your changes press the button. The Direct Access field entry will change from "No" (red font) to "Yes" (green font) and will display the date access range if this has been set.



CRITICAL NOTE: EFFECTS OF GRANTING DIRECT ACCESS TO DOCUMENTS THAT ARE PART OF A PUBLICATION

The key characteristic of a publication is that access to one publication document grants access to all others (within start and end date limitations and removal of documents) within that publication.

If you decide to give non-publication users direct access to documents that have been published to a publication, then they will also be able to view all of the other documents in that publication (assuming they can get hold of them).

We strongly advise publishers not to grant direct access to a document that has been published to a publication. If you wish to do this, then you should protect it again as a standalone document. You can then give users access to that document without granting access to an entire publication.

4.4.3.16 Change number of views



Select this option to change the number of times a document can be viewed (opened) by the selected customer.

This feature also enables you to see how many document views remain (and, therefore, how many have been used) for any document with this restriction set, by individual customer. Note that this change can only be applied to documents that were originally published with a limited number of views. It is not a control that can be introduced after a document has been protected.

The screen below is displayed showing the documents for which this customer has a limited number of views.

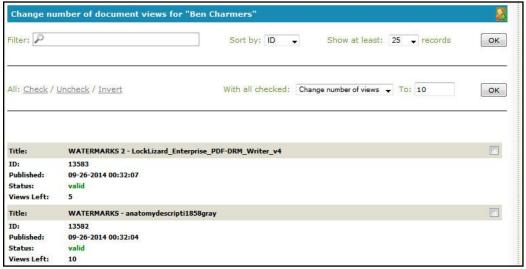


Diagram 44: Documents with Limited Views

Select the document(s) you want to change the number of views for, type in the number of document views you now want to allow, and then press the ok button.



This change can only be applied to documents that you have originally published with a limited number of views. It is not a control that can be introduced after a document has been protected.

4.4.3.17 Change number of prints



Select this option to change the number of times a document can be printed by the selected customer. This feature also enables you to see how many prints are left for a given document for the selected customer.

This feature is useful if, say, you only assigned a single print to a document and the customer claims they have not been able to actually print the document, and you agree to reset the capability.

The screen below is displayed showing the documents for which this customer has a limited number of prints.

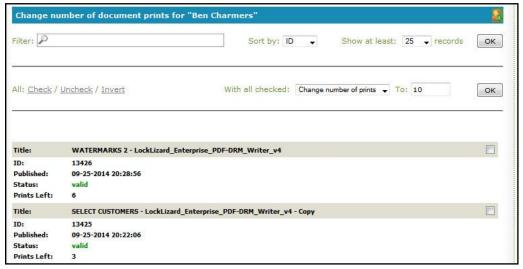


Diagram 45: Documents with Limited Prints

Select the document(s) you want to change the number of prints for, type in the number of document prints you now want to allow, and then press

the ok button.

Note that this change can only be applied to documents that were originally published with a limited number of prints. It is not a control that can be introduced after a document has been protected.

4.4.3.18 Event Log

```
Event log:

04-09-2010 17:44:12 - Registration successful(license reuse). From: 86.171.230.127 (00-1D-09-7A-5E-51-202387019314)
04-08-2010 18:47:36 - Registration successful(license reuse). From: 81.86.100.19 (00-1D-09-7A-5E-51-202387019314)
04-08-2010 18:36:19 - Registration successful(license reuse). From: 81.86.100.19 (00-1D-09-7A-5E-51-202387019314)
04-06-2010 20:40:57 - Registration successful(license reuse). From: 81.86.100.19 (00-1D-09-7A-5E-51-202387019314)
02-23-2010 12:06:48 - Licenses changed to 1 from 0
02-23-2010 12:06:48 - Licenses changed to 1 from 0
02-23-2010 12:06:22 - Registration successful(license reuse). From: 86.168.110.3 (00-1D-09-7A-5E-51-202387019314)
01-15-2010 12:25:38 - Registration successful. From: 86.168.109.3 (00-1D-09-7A-5E-51-202387019314)
01-15-2010 12:25:29 - account created. 1 license(s).
```

Diagram 46: Event Log

The event log shows a history of the customer account.

Information recorded is as follows:

- when the account was created;
- how many licenses were initially allocated;
- when the customer registered their license(s);
- if there have been any failed attempts to register (tried to register a license when one was not available);
- if a license has been re-used (registered again from the same computer);
- the IP and MAC address(es) involved;
- whether the account has been enabled/disabled;
- whether any extra licenses have been allocated.

4.5 Exporting Customer Accounts

This facility is provided to allow you to extract information pertaining to your customers that is held on the administration database.

This information is especially useful if you are running Safeguard internally and system administrators are installing and registering the viewer software on behalf of users, since licenses can be activated using information from the CSV file that is generated.

Click on the 'Export Customers' link from the left column of the Customer Tab.

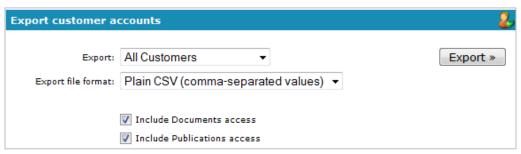


Diagram 48: Export Customer Accounts

4.5.1.1 *Export*

From this pull-down list box, choose the type of customer records you would like to export. The options are as follows:

- All Customers exports all customer accounts.
- Registered Customers exports only customer accounts that have registered.
- Unregistered Customers exports only customer accounts that have not registered.
- **Suspended Customers** exports only customer accounts that are suspended.
- **Expired Customers** exports only customer accounts that have expired.



Export File Format 4.5.1.2

From this pull-down list box, choose the file format you would like your customer information to be exported to. The options are as follows:

- Plain CSV exports information as a CSV file.
- Zipped CSV exports information as a ZIP file with the contents in CSV format.

4.5.1.3 *Include Document access*

Check this box if you want to include the document IDs that each customer has been given access to.

NOTE: If the export fails or produces a zero byte size file, then uncheck this box.

4.5.1.4 **Include Publication access**

Check this box if you want to include the publication IDs that each customer has been given access to.

Select the appropriate options corresponding to the data you want to export Export » and then press the button.

You may process the information provided in any suitable spreadsheet application.

The following information is exported:

- Customer ID
- Customer name
- Customer email
- Company name
- · Account creation date
- Account expiry date
- Registration status (whether the customer has registered or not)



- Date of registration if applicable
- Number of licenses available
- Whether the account is suspended
- Document access
- Publication access
- If access to the Web Viewer has been granted or not

4.6 Batch Changes to Customer Accounts

The batch change facility is provided to enable you to perform specific actions on ALL your customer accounts and <u>USB devices</u> in one go. It provides a quick way of mass updating customer accounts (e.g. giving all your customers access to new publications or documents you have published) without you having to manually select individual accounts to perform specific actions on.

Click on the 'Batch Changes' link.

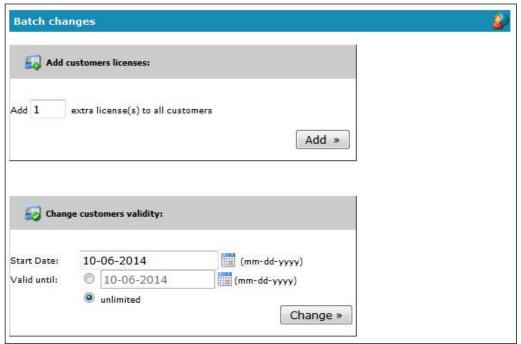


Diagram 49: Customer Account Batch Changes

The following facilities are available:

- Add extra licenses
- Change account validity (start and end dates)
- Delete customer accounts that have expired / are suspended / not registered
- Resend registration email
- Grant document access to one or more documents
- Grant publication access to one or more publications

4.7 Publications

Publications are best used when your customers are taking a regular supply of documents, daily, weekly, monthly, etc. or a complete series of documents such as a training course.

By allocating documents to a publication you are simplifying the administration of accessing the document by your customers. This is because any customer associated with a publication can automatically use all the documents that are associated with that publication without them having to connect to the Administration server to retrieve new license information. It therefore avoids you having to allocate individual documents to each customer entitled to make use of them.

The administration functions provided are:

- Create publications;
- Delete publications;
- Search for publications;
- Export publication records;

To add, manage, or export publications, click on the 'Publications' tab.

4.7.1 Adding publications

To add a publication, click on the 'Add Publication' link.

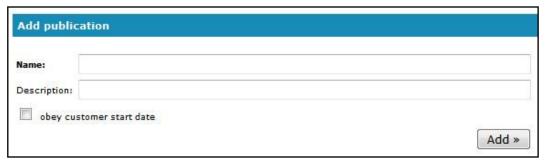


Diagram 50: Add Publication

Enter a name for the publication (max 64 characters), and optionally a description, and then press the Add > button.

4.7.1.1 Obey Customer Start Date

Check this box if you don't want customers to have access to documents published before the customer was added. For example, do this if you are selling subscription services for a publication and do not wish new customers to gain access to back numbers (issues published before the customer subscribed to your publication).

If this box is not checked then the customer start date will be ignored and customers will be able to access all the documents that have been published to the publication. Please recall that if you publish a document with a start date in the future it will not become available to customers until that date.

4.7.2 Managing publications

To view and manage existing publications, click on the 'Manage Publications' link.

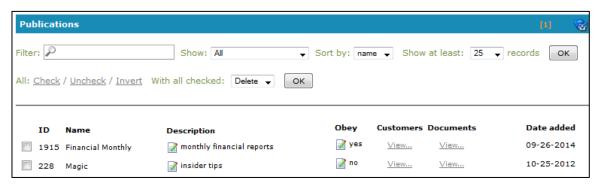


Diagram 51: Manage Publications

Here you can see the list of publications present in your system.

You can modify a publication's description, change whether the customer start date should be obeyed, view documents published to a publication, and view/add/revoke customer access to a publication.

The ID field is an internal reference number and cannot be changed. The ID can be used in conjunction with the ecommerce interface when granting access to publications.

4.7.2.1 Search and Sort options

• Filter

Use the 'Filter' field to find a publication by name or ID, or leave it blank to view all publications. To search by ID enter $\mathbf{ID}=n$ where n is the ID number of the publication.

Show

Select 'All' to view all publications, 'Obey Start Date' to view publications that obey the customer start date, and 'Don't Obey Start Date' to view publications that don't obey the customer start date.

Sort by

Choose the 'date' option from the 'Sort by' field to view the most recently added publications first. Choose the 'name' option to display publications in alphabetical order or the 'ID' option to display publications in ID order with the most recently added publications first.

• Show at least *n* records

You can change the number of records displayed on a page by choosing the appropriate number from the 'Show at least' pull-down list box.

4.7.2.2 Editing Descriptions and Obey Customer Start Date

To edit a publication description or change whether a customer start date should be obeyed, click on the \square icon.





Diagram 52: Editing Publication information

You may change the text in the 'Description' field and check/uncheck the 'obey customer start date' accordingly. Press the OK > button to save changes.

4.7.2.3 Viewing Customer Access to a Publication

Under the Customers column (see diagram 47), click on the 'View...' link. The following dialog is displayed:

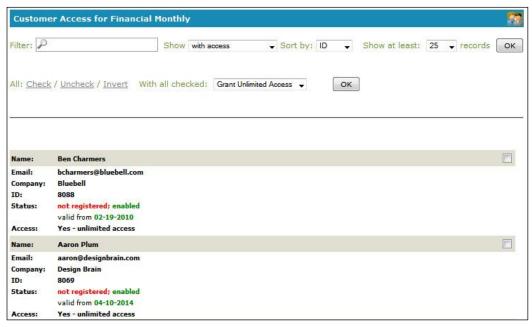


Diagram 53: Customer Publication Access

From this dialog you can see which customers currently have access to a publication, and grant or revoke individual customer access. By default only customers with access to the selected publication are displayed ('With access' is displayed in the 'Show' pull-down list box).

4.7.2.4 Granting Customer Access to a Publication

To grant a customer access to a publication, select the 'All' option from the 'Show' pull-down list box so that you view all customer accounts and then select the customer(s) you want to grant publication access to. Then from the 'With all checked' pull-down list box, select the customer access interval to the publication.

- Grant Unlimited Access grants access to the publication with no expiry. Select this option if you do not want access to the publication to expire.
- Grant Limited Access grants access to the publication with expiry. Select this option if you want access to the publication to expire. If you choose this option then the date range fields will appear where you can enter a start and end date for accessing the publication. The dates you enter here will determine the time frame that this publication is made available to this customer.

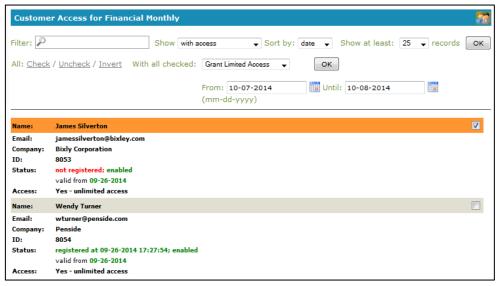


Diagram 54: Grant Limited Access (publication access date range)

Any documents that are assigned to that publication will be viewable by this customer within the publication and customer validity dates. The customer will still have to be sent, or made available for download, the actual documents before they can use them.



Do remember that if you have given a customer offline access (i.e. there is no control requiring connection to the server) to a publication that does not expire, there is no point trying to change access restrictions later, because the changes will have no effect.

4.7.2.5 Revoking Customer Access to a Publication

To revoke customer access to a publication, select the 'With access' option from the 'Show' pull-down list box to view all customer accounts with access to the publication, and then select the customer(s) you want to revoke access. Then from the 'With all checked' pull-down list box, select the 'revoke access' option and then press the ok button.



IMPORTANT NOTE: Revoking publication access

Once you have revoked access to a publication, then if the customer in question is accessing documents that required them to connect to the Administration server, those documents will no longer be viewable, since there are no records to authorize against. If the customer in question is accessing documents that do not require them to connect to the Administration server then those documents will continue to be viewable by that customer regardless.

4.7.2.6 Viewing Documents published to a Publication

To see which documents have been published to a publication, click on the 'View...' link under the Documents column (as shown in diagram 47).

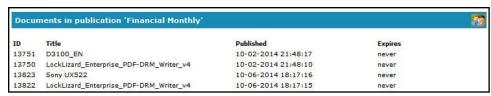


Diagram 55: Documents published to a publication

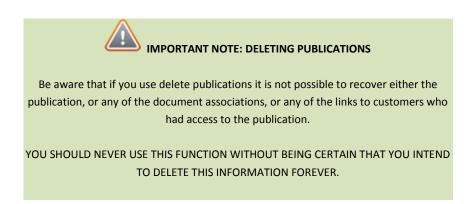


Note: You cannot remove documents from a publication.



4.7.2.7 Deleting Publications

To delete existing publications, check the box next to the publication name(s) and then select the With all checked: □elete ▼ □oK button.



4.7.3 Exporting publications

This facility is provided to allow you to extract information pertaining to your publications that are held on the administration database.

Click on the 'Export Publications' link from the left column of the Publications Tab.



Diagram 56: Export Publications

4.7.3.1 Export

From this pull-down list box, choose the type of publications you would like to export. The options are as follows:

• All Publications – exports all publication records.

4.7.3.2 Export File Format

From this pull-down list box, choose the file format you would like your publications to be exported to. The options are as follows:

- Plain CSV exports information as a CSV file.
- **Zipped CSV** exports information as a ZIP file with the contents in CSV format.

You may process the information provided in any suitable spreadsheet application.

Select the appropriate options corresponding to the data you want to export and then press the Export » button.

The following information is exported:

- Publication ID
- Publication Name
- Publication Description

4.8 **Documents**

This section is where you can view document information, grant or revoke customer access to documents, suspend documents, and delete document records from the Administration system.

The administration functions provided are:

- Search for documents;
- Suspend documents;
- Delete documents;
- Grant and revoke customer access to documents;
- Add or change document notes;
- Export document records.

To view, manage, and export documents, click on the 'Documents' tab. The Manage Documents dialog is displayed.

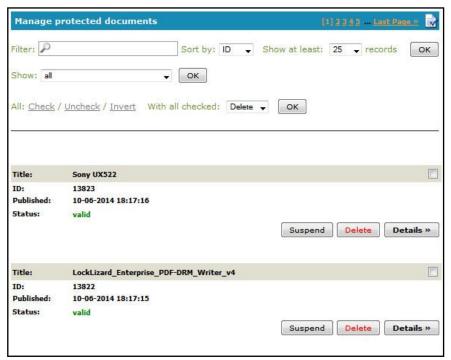


Diagram 57: Manage Documents

Here you can see a list of the documents you have added to the system (this occurs when you protect a document using the Writer software).

4.8.1 Document Search and Sort options

4.8.1.1 Filter

Use the 'Filter' field to find a document by name or ID, or leave it blank to select everything. To search by ID enter $\mathbf{ID} = n$ where n is the document ID number.

4.8.1.2 Sort by

Select from this pull-down list box whether you want records displayed in title, date, or document ID order. If you select 'title' then records will be sorted in alphabetical order. If you select date then records will be sorted in document published date order with the newest entry first, and ID order shows the most recent ID first.

4.8.1.3 Show at least n records

You can change the number of records displayed on a page by choosing the appropriate number from the 'Show at least' pull-down list box.

4.8.1.4 Show

From the 'Show' field you can select particular classes of document records that you want displayed. The following options are available:

- All displays all documents.
- **Expired** displays only documents that have expired.
- **Not yet expired** displays only documents that have not yet expired.
- That expires on displays only documents that expire on a selected date.
- That belong to the publication displays documents that have been published to the selected publication.

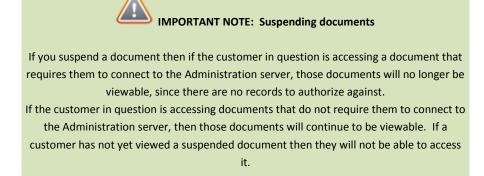


- With limited views displays only documents published with limited views.
- With limited prints displays only documents published with limited prints.
- Suspended displays only suspended documents.
- Protected for all customers displays documents that all customers can access;
- Protected for selected customers displays documents protected as standalone documents (individually allocated)

4.8.2 Suspending documents

You can suspend a document to prevent customers from accessing it or continuing to access it. It may be for example that you want to publish all your documents in one go with unrestricted access (so no date range is set) but only enable access at a date/time that suits your purpose.

To suspend documents, select the documents you want to suspend by checking the boxes next to their names, and then press the Suspend button. Once a document has been suspended the Suspend button is replaced by an Activate button. Press this if you want to re-activate the document.



4.8.3 Deleting documents records

You may want to delete a document record if you need to withdraw a document from customers, perhaps because it has been superseded.



IMPORTANT NOTE: Deleting document records

Once you have deleted a document record then if the customer in question is accessing a document that requires them to connect to the Administration server, those documents will no longer be viewable, since there are no records to authorize against. If the customer in question is accessing documents that do not require them to connect to the Administration server, then those documents will continue to be viewable. If a customer has not yet viewed a deleted document then they will not be able to access it.

Document records can be deleted by checking the boxes next to their names and then pressing the Delete button.

If you want to delete ALL your document records (for example you want to remove a test environment) then select the 'All: Check' option to select all document records, and then press the Delete button.



IMPORTANT NOTE: Record recovery

There is no recovery if you delete document records. They cannot be reinstated, and you will have to protect new documents if you want to replace existing ones.

4.8.4 Viewing documents details

To view the protection settings that have been applied to a document, click on the More Details >>> button for that document. The following information is displayed in the right-hand pane:



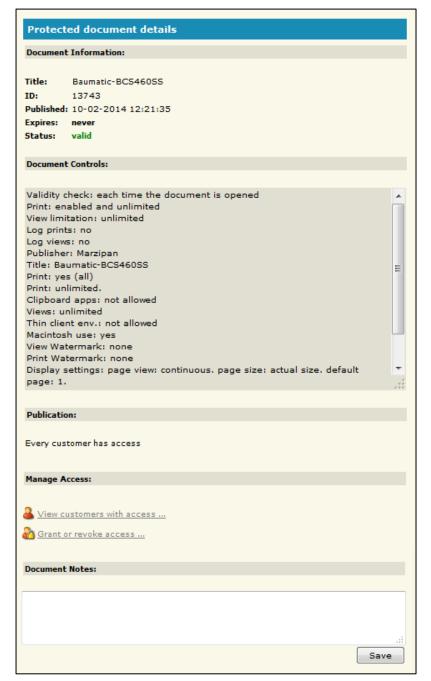


Diagram 58: Document details

The following information is displayed:

- Document titles;
- Their unique IDs (this helps you distinguish between documents of the same name and is also used by the eCommerce integration system);
- When they were published (date and time);

- When they expire (if ever);
- Their existing status (valid, expired, or suspended);
- Whether a check must be made with the server before they can be viewed (Validity check);
- Whether printing is allowed (and if so how many copies); This field may show one of three options:
 - Disabled printing is not allowed;
 - o Enabled and unlimited unlimited printing is allowed;
 - Enabled; n copies allowed printing is allowed by restricted to the number of copies specified.
- Whether clipboard applications are allowed (screen grabbing);
- Whether views are limited (and if so how many times);
- Whether thin client environments are allowed;
- Whether use on Macintosh operating systems is allowed;
- Whether view watermarks have been applied (images/text);
- Whether print watermarks have been applied (images/text);
- The document display settings;
- Whether document prints are logged;
- Whether document views are logged;
- Version of the Writer software used;
- What publications they have been assigned to (if any); This field may show one of three options:
 - None the document has been published as a standalone document;
 - Every customer has access the document has been published for all customers to view;
 - A publication name the document has been published to a publication.

You cannot alter any of the information in this panel apart from the expiry date if one has been set and the document notes. If you want to make changes you will have to go back to the original document and protect it again as a new item using new settings.



4.8.5 Viewing customers with Access to a document

To view customers with access to a document, click on the 'View Customers with access' link.



The following dialog is displayed:



Diagram 59: View Customers with Access

You can export this information to a CSV file by clicking on the CSV Export > button.

4.8.6 Granting Customer Access to a document

To grant a customer access to a document, click on the 'Grant or Revoke access' link.



The following dialog is displayed:

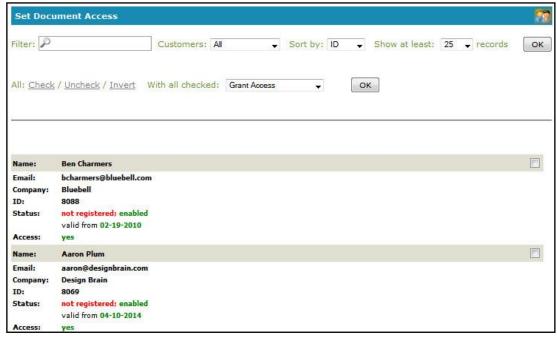


Diagram 60: Grant Document Access

Select the 'Without access' option from the 'Customers' pull-down list box to view all customer accounts that do not have access to the document and then select the customer(s) you want to grant access to. Then from the 'With all checked' pull-down list box, select the customer access interval to the publication.

- **Grant Access** grants access to the document(s) using the original expiry settings you chose when you protected the document.
- Grant Unlimited Access grants access to the document(s) with no expiry. Select this option if you do not want access to the document to expire.
- Grant Limited Access grants access to the document with specific start
 and end dates. Select this option if you want access to the document to
 expire. If you choose this option then the date range fields will appear
 where you can enter a start and end date for accessing the document.
 The dates you enter here will determine the time frame that this
 document is made available to this customer.

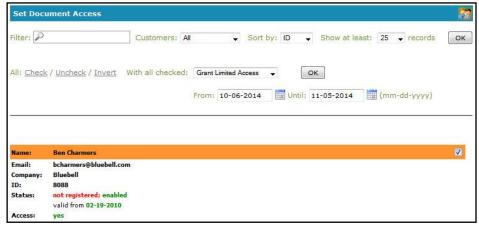
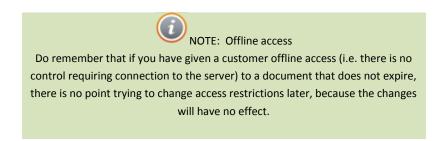


Diagram 61: Grant Limited Access (document access date range)

Once you have made your changes press the ok button.



4.8.7 Revoking Customer Access to a document

To revoke customer access to a document, select the 'With access' option from the 'Customer' pull-down list box to view all customer accounts with access to the document, and then select the customer(s) you want to revoke access.



Diagram 62: Revoke Access

Then from the 'With all checked' pull-down list box, select the 'Revoke Access' option and press the OK button.

Note: You can only revoke customer access to a document if the document was protected for 'all customers' or 'selected customers'. You cannot revoke customer access to a document protected to a publication because a common publication key is shared between publication documents. You can however change the date access range for individual publication documents to provide limited or no access. For instance, setting both the start and end dates to before today effectively ceases access.



IMPORTANT NOTE: Revoking document access

Once you have revoked access to a document, then if the customer in question is accessing documents that required them to connect to the Administration server, those documents will no longer be viewable, since there are no records to authorize against. If the customer in question is accessing documents that do not require them to connect to the Administration server then those documents will continue to be viewable by that customer regardless. If the customer has not yet viewed the document you have revoked then they will not be able to access it.

4.8.8 Document open history

If you have logged document views when protecting a document then the 'View Document Open History' link is displayed.



Clicking on this link will display the following dialog:

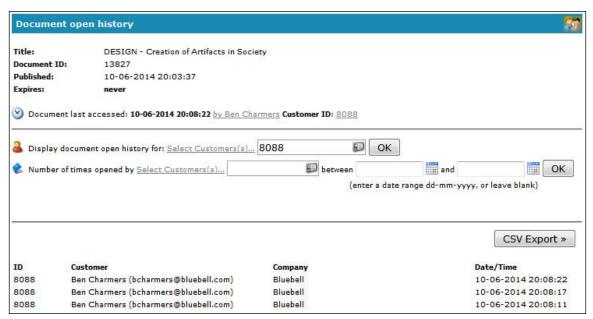


Diagram 63: Document Open History

From this dialog you can display the document open history for specific customers by clicking on the 'Select Customer(s)' link and choosing the appropriate users from the Customers pop-up dialog (as shown below).

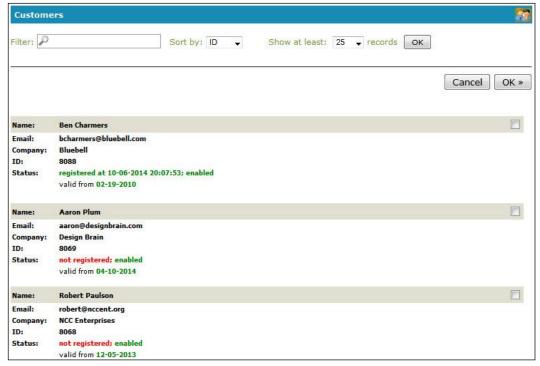


Diagram 64: Select Customers dialog

Check the boxes next to the customers you would like to select and the press the OK » button. The customer IDs you selected will be displayed in the Select Customers(s)... 8088 OK 'Select Customer(s)' field Press the OK button to display the document open history.

This information can be exported to a CSV file by clicking on the CSV Export » button.

You can also display the number of times a specific customer has opened a document in total or during a specific date range.

This dialog also displays the user who last accessed the document.

4.8.9 Document print history

If you have logged document prints when protecting a document then the 'View Document Print History' link is displayed.



Clicking on this link will display the following dialog:

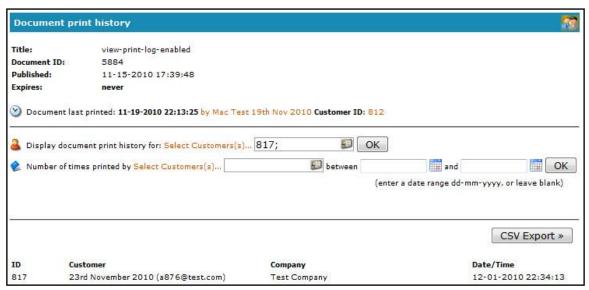


Diagram 65: Document Print History

From this dialog you can display the document print history for specific customers by clicking on the 'Select Customer(s)' link and choosing the appropriate users from the Customers pop-up dialog (as shown below).

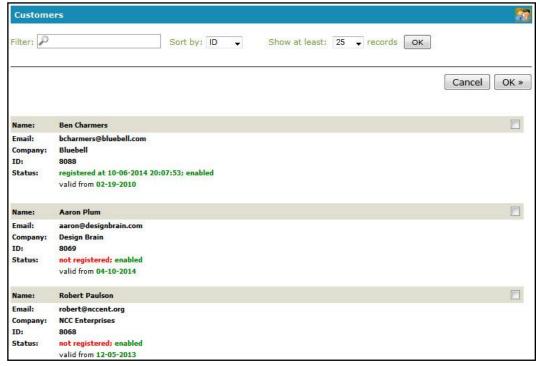


Diagram 66: Select Customers dialog

Check the boxes next to the customers you would like to select and the press the OK > button. The customer IDs you selected will be displayed in the 'Select Customer(s) field Select Customers(s)... 8088 OK.

Press the $\overset{\mathsf{OK}}{=}$ button to display the document print history.

This information can be exported to a CSV file by clicking on the CSV Export > button.

You can also display the number of times a specific customer has printed a document in total or during a specific date range.

This dialog also displays the user who last printed the document.

4.8.10 Exporting document records

This facility is provided to allow you to extract information pertaining to your documents that is held on the administration database.



Click on the 'Export Documents' link from the left column of the Documents Tab.

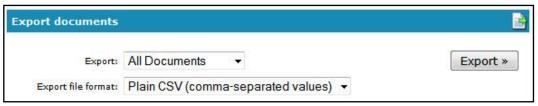


Diagram 67: Export Documents

4.8.10.1 Export

From this pull-down list box, choose the type of document records you would like to export. The options are as follows:

• All – displays all documents.

4.8.10.2 Export File Format

From this pull-down list box, choose the file format you would like your document information to be exported to. The options are as follows:

- Plain CSV exports information as a CSV file.
- **Zipped CSV** exports information as a ZIP file with the contents in CSV format.

You may process the information provided in any suitable spreadsheet application.

Select the appropriate options corresponding to the data you want to export and then press the Export » button.

The following information is exported:

- Document ID
- Document Title
- Published date
- Expiry (never, date, or x days after first use)
- Status (valid, expired, suspended)
- Validity check (never, x days, every time, after x days then never again)
- Print allowances (none, unlimited, x copies)
- View allowances (unlimited or x views)
- Publication the document was protected to

4.9 **Settings**

From the Settings tab you can set or change your support and monitor email addresses, and choose how license files will be delivered.

The administration functions provided are:

- Change the support email address;
- Set a monitor email address (so you can receive a copy of all license emails that are sent by the system);
- Prevent license emails being sent out (useful if you use the eCommerce integration module and display license information on a web page);
- Send license files as a link or as an attachment to the registration email;
- Restrict registration to an IP address or range of IP addresses on a global basis;
- Enforce viewer updates;
- Configure SMTP settings.

Information regarding current settings is displayed in the right-hand pane.



Diagram 68: Current Email Settings

4.9.1 Set Support Email

You should use this function to set up your standard support email address so that your customers will be serviced correctly.



When you create customer accounts, your customers are sent an email a registration email) that contains their license file and a link that allows them to download the free Viewer software. This email displays the following text:

"If you have any difficulty registering the product please contact the document owner at **email@address.com**"

This is the email address where your customers can send email if they have problems accessing protected documents that you provide. This is also the reply address of the registration email. If you want to change the **from** address (where the email appears to be sent from) please see <u>SMTP settings</u>.



Diagram 69: Set Support Email Address

Click on the 'Set Support Email' link and enter the support email address for your company in the E-mail field so that it will be displayed to your customers instead of the default one. Then press the Save button.

The default support email address is the one that was used for the creation of your PDF Writer publisher account and is where your PDF Writer registration information was sent. Please note that Locklizard Support automatically refer any end user queries to the publisher concerned and will not respond to them directly at any time.



4.9.2 Set Monitor Email

This function allows you to set the email address to which a copy of the customer license file will be sent.

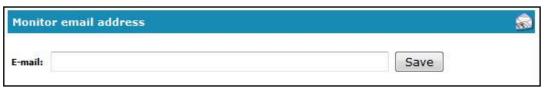


Diagram 70: Set Monitor Email Address

Enter an email address and the press the Save button.

You can add more than one email address in this field by using a semi-colon and a space as a separator. For example, xyz@abc.com; xyz@hotmail.com

You may want to use this function so that you have a record of when license emails were sent out to your customers.

Further, you may wish to send your customers a default email message containing your own content, perhaps informing them of updates or new information relevant to the product(s) that they have acquired. To do this you would need to set up an auto-responder that is automatically triggered when the license email arrives in your inbox. You would need to configure your own email system to do this. It is not an internal feature of Safeguard Enterprise.

Please be aware that some email servers reject email coming from an automated source, because they choose to believe that it must be spam, and you may therefore need to provide a manual follow up where that happens. The same can be true if you are sending a license to an internal user but it is starting from outside of your internal domain.

4.9.3 Set License Delivery

The Administration system is set, by default, to automatically send a registration email containing a license file, whenever a customer record is added to it. If your business model prefers to send license information directly



from your web site to a customer, or, some other internal management process, then you should uncheck this option so that the Administration system will NOT send the registration email to a customer when they are added to the system.

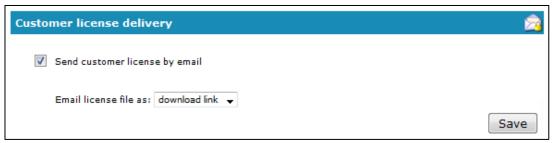


Diagram 71: Set Customer License Delivery

4.9.3.1 Send customer license by email

To **disable** license file emails being sent to your customers uncheck the 'Send customer license by email' checkbox and then press the button. Even if you select this option, you can still send license files to customers on an individual basis when creating and editing customer accounts.

To **re-enable** license file emails check the 'Send customer license by email' checkbox and then press the Save button.

NOTE: Customer license delivery and ecommerce integration

In an automated solution we would expect you to be using the Locklizard eCommerce integration module in order to display customer license files on a web page automatically. If you are using this method of license file delivery, then most likely, you would want to disable the sending of license file emails by the Administration system.

4.9.3.2 Email license file as

Here you can choose whether you want the license file to be sent with the registration email as an attachment (.llv and .zip files), or as a link to the license file which is stored on the administration system. You may want to choose the download link option for example if emails are being rejected or blocked due to unknown attachments or attachments are being removed by the inbound mail server.

4.9.4 Restrict IP

Here you can restrict registration of licenses and document use to a specific IP or range of IP addresses. For example, if you are using Safeguard Enterprise within your organization you may want to enter the IP address range for your company so that no one can register a license or use documents outside of your organization.

NOTE: Restrict IP & document access

If you want to restrict document usage to a specific IP or range of IP addresses then you must make sure that document access is verified each time the document is opened, and that offline use (verify document access=never) is not allowed.



Diagram 72: Restrict IP globally

You can use this feature in conjunction with the Restrict IP option on each user's account. For example, you may want to restrict license registration and document use to your company IP address on a global basis (as specified here), but allow specific users or third parties to register and use documents outside this IP address range. In this case you would enter the IP address you want to allow for each user on their individual accounts.

4.9.5 Secure Viewer

Check the 'Enforce viewer update' checkbox if you want to make sure users are using the latest version of the Viewer software. You may want to do this for example if a new feature or bug fix is available in the latest Viewer that would be of benefit to you as a publisher or to your customers.



Diagram 73: Enforce Viewer updates

If this box is checked then when the Viewer next connects to the Internet (say to obtain a document decryption key or perform a verification check) then the user will be prompted to download the latest version of the Viewer software. If the user does not upgrade when prompted then they will not be able to view any new documents until they upgrade to the latest version of the Viewer.

4.9.6 Mail Server (SMTP)

By default, the Locklizard administration system uses the mail servers of the ISP the administration server is hosted with. Because registration emails are sent from the domain of the server yet appear to come from your own email address (the default one on your publisher account or the support email address if you have entered one) some systems may mark them as SPAM. If a large number of registration emails are not getting through to your customers then you can use your own SMTP server by configuring your outgoing mail server details in the dialog below:

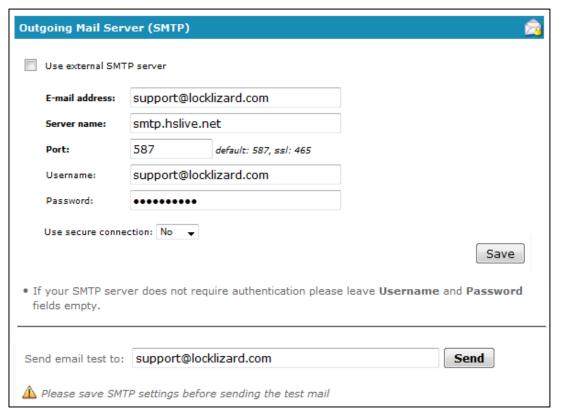
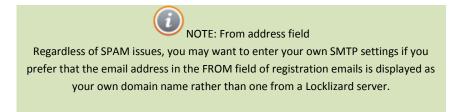


Diagram 74: SMTP settings

Check the 'Use external SMTP server' checkbox and then enter the details for your mail server. The email address you should enter is the one you would like the registration emails to be sent from.

For the server name, enter smtp.domain.com (where domain.com is your domain name). The username and password is for the email address account you have chosen. Once you have saved the settings, test that they work as expected by entering an email address in the test field.



4.10 Statistics

The statistics section gives you an overview of the status of your customers, documents, and publications. Here you can quickly view system information and activity logs, and generate reports.

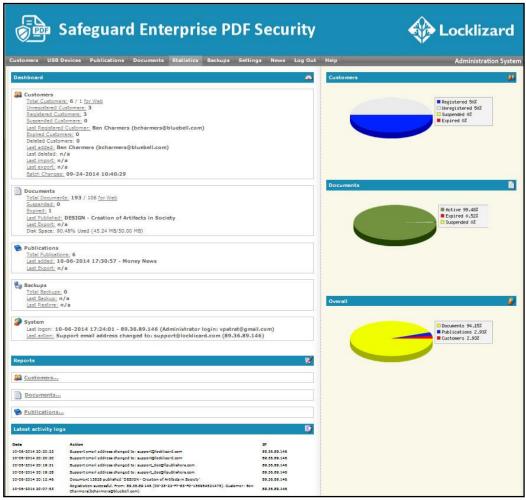


Diagram 75: Statistics

The administration functions provided are:

 Activity Logs. See a detailed log of system activity - when administrators logged in and additions, deletions, and amendments made on customer accounts, documents, and publications. Export that information to a CSV file;

- Report generation. Generate a report to obtain customer, document, and publication information, and export that information to a CSV file;
- Statistics. Summary view of your customers, documents, publications, and system activity.

4.10.1 Dashboard

This section provides an overview of your customers, documents, publications, system information, and backups.

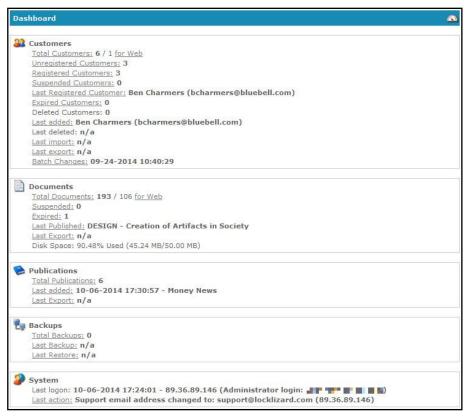


Diagram 76: Dashboard

The following information is displayed:

Customers

- Total Customers
- Unregistered Customers
- Registered Customers

- Suspended Customers
- Last Registered Customer
- Expired Customers
- Deleted Customers
- Last added
- Last deleted
- Last import
- Last export
- Batch Changes

Documents

- Total Documents
- Suspended Documents
- Expired Documents
- Last published
- Last export

Publications

- Total Publications
- Last added
- Last export

Backups

- Total Backups
- Last Backup
- Last Restore

System

- Last logon
- Last action

Clicking on a link will display the selected information. For example, if you click on the 'unregistered customers' link, it will display a list of unregistered customers in the Customer Accounts section (Customer tab).

The right-hand pane provides a graphical summary of your customers and documents.

4.10.2 Reports

This section enables you to generate reports that contain information on your customers, documents and publications. You can export this information to a CSV file and/or print it.

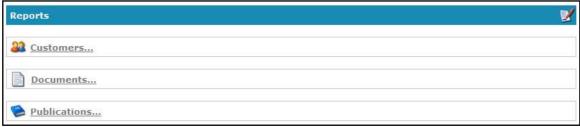


Diagram 77: Reports

4.10.2.1 Customer Reports

Clicking on the 'Customers' link will display the following dialog:

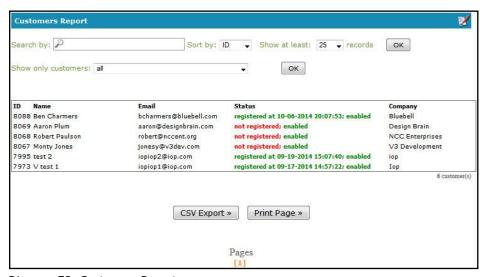


Diagram 78: Customers Report

The following options are available from the 'Show only customers' pull-down list box:

- All customers
- Customers added in last week

- Customers that can access document X
- Customers that can access publication X
- Customers that have registered (between date range or in total)
- Customers that have NOT registered
- Customers whose accounts have been suspended
- Customers whose accounts have expired
- Customers whose accounts expire in *n* days time, or on a specific date, or between specific dates
- Customers with access to documents that expire in x days time, or on a specific date, or between specific dates
- Show all customers created before (DATE)
- Show all customers created after (DATE)
- Show all customers created between (DATE) and (DATE)

4.10.2.2 Document Reports

Clicking on the 'Documents' link will display the following dialog:

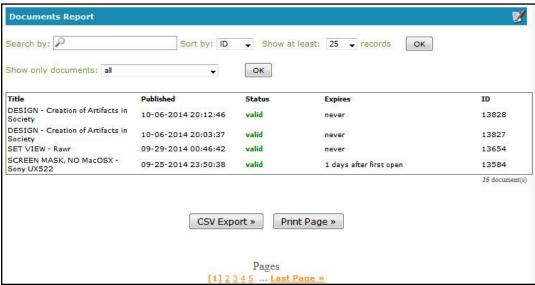


Diagram 79: Documents Report

The following options are available from the 'Show only documents' pull-down list box:

- Show all documents
- Documents that have expired
- Documents that expire on a specific date
- Documents that have been published to publication X
- Documents with limited views
- Documents with limited prints
- Documents created before (DATE)
- Documents created after (DATE)
- Documents created between (DATE) and (DATE)
- Documents added in last week

4.10.2.3 Publication Reports

Clicking on the 'Publications' link will display the following dialog:

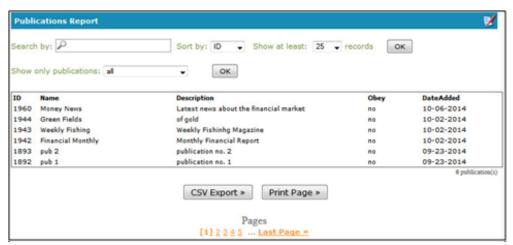


Diagram 80: Publications Report

The following options are available from the 'Show only publications' pull-down list box:

- Show all publications
- Publications created before (DATE)
- Publications created after (DATE)
- Publications created between (DATE) and (DATE)

4.10.3 Activity Logs

This section displays the latest activity logs (date, action, IP address) and shows what administrative actions have been performed on the system.

The first 30 records are displayed. Clicking on the More... button will show the activity logs for the last 6 months in a new window, which can then be exported to a CSV file.

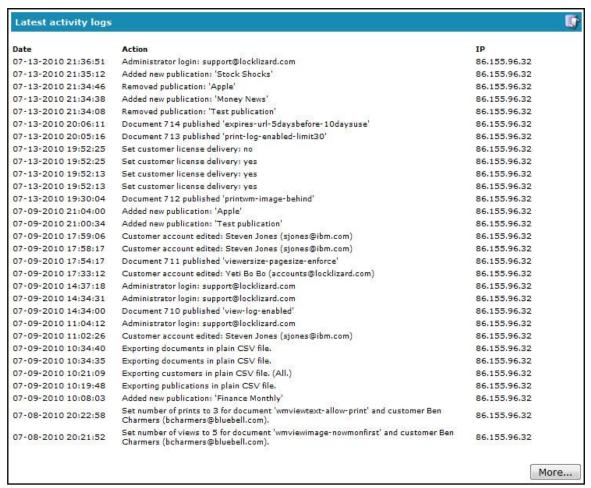


Diagram 81: Activity Logs

Activity logs older than 6 months are progressively deleted by automatic system utilities. Publishers are advised to take backups of this data suitable for their own operational purposes since Locklizard do not offer a data recovery service for deleted data.

4.11 Backups

Backups allow you to download to your computer a zipped copy of all your current administration system data so you can process it separately, or if required, restore it at a later date.

Select the 'Backup' tab to backup and restore system data.

The right-hand pane displays information relating to when a backup and restore was last made.

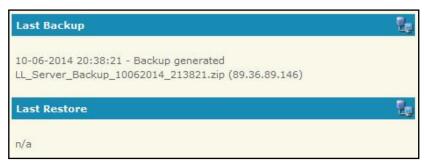


Diagram 82: Backup & Restore Information

4.11.1 New Backup

To create a new backup, click on the 'New Backup' link.

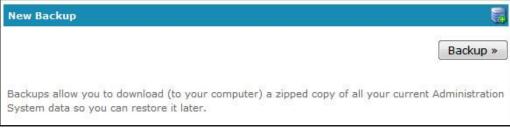


Diagram 83: New Backup

Press the Backup » button to generate the backup.

The system will create a ZIP file containing the administration system data (a series of dat files and an info.txt file containing the backup date).



4.11.2 Restore Backup

To restore an existing backup, click on the 'Restore Backup' link.

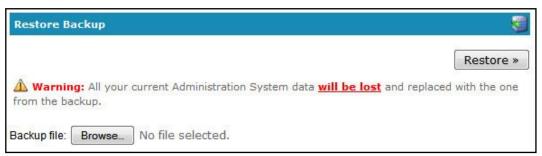


Diagram 84: Restore Backup

Use the Browse... button to select the backup file. Then press the Restore » button.

In the event that a 'Restore Backup' command is interrupted (machine failure, Internet connection failure) the command must be re-issued and the restore completed before your system data will be fully returned and usable.

4.12 USB Devices

If you have purchased <u>Safeguard Portable</u> then the 'USB Devices' tab is available.

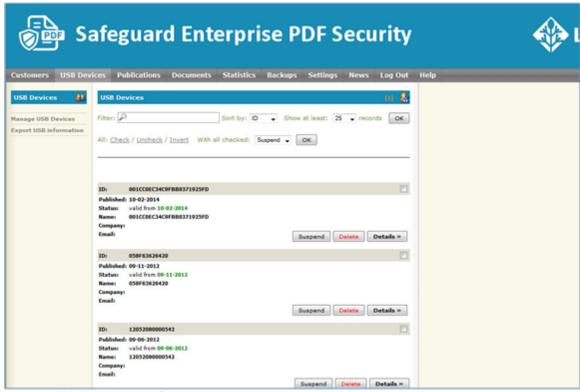


Diagram 85: USB Devices Tab

From here you can view the USB Devices you have populated, edit accounts, and assign document and publication access.

Clicking on the Details button will display information relating to the USB device.

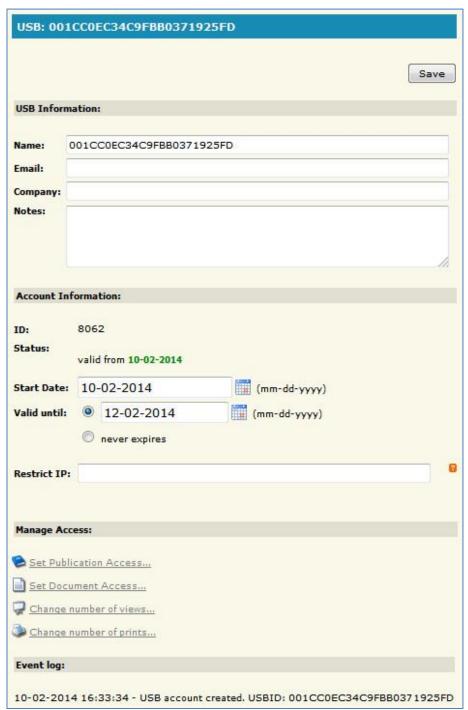


Diagram 86: USB Details

4.12.1.1 Name, Email & Company

By default, the USB ID is displayed in the Name field. You can change this information to that of a user name if you want to associate a particular user with a USB device. You may also want to populate the email and company fields with their details since this information will be picked up by the Viewer when using dynamic watermarking.

4.12.1.2 USB ID

USB: 001CC0EC34C9FBB0371925FD

This field displays the USB serial number. It is for information purposes only, and is used to identify a USB device. A user may require it to be able to identify their device if you need to update the documents they are authorized to use.

4.12.1.3 Status

This field shows when the USB account was created and if the account is enabled or suspended.

4.12.1.4 Start Date

Because users do not have to register USB devices, setting a start date has no meaning because it does not stop users viewing documents before this date has been reached. However it is used when documents have been protected to publications that have the 'obey start date' selected.

4.12.1.5 Restrict IP

You may want to enter an IP address or address range here if you only want the USB device to be used at certain locations (i.e. for a corporate environment you can restrict use so that it can only be used in the office, or a library might restrict it to addresses in its domain).



NOTE: Documents MUST be set to check with the administration



server (verify document access=each time the document is opened) for this to be enforced.

4.12.1.6 Set Publication & Document Access

If you have published a keystore that is not a blank one to the USB device then decryption keys are already available to the user and you do NOT have to assign access here. The document and publication access records will display the documents/publications the USB device has been granted access to automatically.

The only reason why you would need to assign access here is because you have published either a blank keystore, or users want the user to be able to view additional documents to those already published on the USB device.

4.12.1.7 Change number of Views & Prints

If you have published protected documents to the USB device with limited views/prints, then you can grant additional views/prints here.

4.12.1.8 Batch Changes

The following Batch changes options available from the *Customers Tab* > *Batch changes* link also affect USB devices.

- Change customers validity
- Delete customers accounts
- Grant document access to all customers
- Grant publication access to all customers

If you therefore, for example, grant specific document access to all customers then all USB devices will be granted access too.



Chapter 5: **How customers use your documents**

Once you have created a customer account and your customer has received their registration email, they can simply install the Safeguard Viewer by downloading the software and double-clicking on the exe file. This automatically installs and registers the linking of the .PDC file extension to the Viewer.

The registration email that is automatically sent to your customers is customized with the name that you used to register the Secure PDF Writer account with and your publisher email address (which <u>can be changed</u> in the Administration system). Before your customers can start viewing your protected documents they must first register with you as a publisher. This can be done even before they have been authorized to use any documents.

Once a customer has installed and registered the Viewer software you can send them a PDC file (a protected PDF file). They then double-click on the PDC file in Windows File Explorer and it will be displayed in the Viewer software (assuming of course you have granted them access to that particular document).

When a customer views one of your secure PDF documents for the first time, the Viewer software will check if it has the correct key to view it. If it does not, the Viewer will check with the Administration server to see if the customer has been granted access to the document (your customer MUST be connected to the Internet at this point).

If access is allowed then the decryption key will be transparently relayed (the customer will be unaware of this operation) to the client computer, and stored in the encrypted Safeguard Viewer keystore. If no key is available, your custom message for refused access (set when you protected this specific document) will be displayed telling the recipient how to contact you and purchase your documents, or warning them that the document is not for their licensed use. You will need to determine the most relevant message.

Protected PDF files are decrypted in memory and displayed in the secure Safeguard



Viewer. Details of when the user's account expires (if ever) and when the document they are viewing expires (if ever) are displayed at the bottom of the Viewer window.

5.1 **Document Issues**

Should your customers need to contact you with an issue viewing protected documents then you should advise them to select the option "Contact Service Support" from the Help menu in the Safeguard Viewer. By using this option important machine and version information will be sent to you, which can then, if necessary, be passed on to the Locklizard support team for further investigation.

Please note: Locklizard will only deal with support requests from publishers, and not from publisher's customers. Support requests arriving from people who are not direct customers of Locklizard may be deleted without any response at all.

Chapter 6: **Distributing Documents**

Delivering the documents that your customers are going to use is a critical part of the business process. But there are different models that you should consider for delivering documents to customers.

The two principal business process models you can use are 'push' or 'pull' which we can call 'sending documents' and 'downloading documents.'

6.1 Sending documents to customers

This model is appropriate where you have very regular requirements to send information to a regular or specific group of contacts. These may be business partners or customers buying a regular service.

If you are sending small documents (newsletters, invoices, contracts) it may be efficient to send the document by email to the customer immediately after it is ready. This is efficient from an operational viewpoint because there is a high chance that the document will get to its destination and that the recipient is already able to read it.

It is also efficient in terms of a business process that fits this model. If you regularly send small and different documents to different customers this model works well. It is NOT suitable where you have large documents, unless you plan to send them by CD-ROM or other physical media in the post. This is mainly because the majority of email servers will reject attachments over 3Mb in size. If you normally provide larger documents you should consider the next option.



6.2 Customers downloading documents

In this model you are providing a service to customers. They are free to download any documents from your web site. Your model may be that potential customers are able to download and read a sample of the document you have for sale, and can then download any documents that they have bought or might wish to buy.

Locklizard secured files are fully encrypted, so anyone can download them, but until they have purchased a license, they will not be able to make any use of any downloaded information. This means that you can publish protected files to your web site with confidence that they cannot be used by anyone except customers who have paid or who are authorized to receive them. It therefore does not matter if prospects or customers have access to these protected documents even before they have purchased them.

This approach is more efficient when you have relatively large files for customers, and where customers are confident to visit your web site in order to collect their information. It is like visiting a bookshop and taking away books you might like to read (but not yet) and only having to pay for them when you want to read them.

It should be chosen whenever you will have documents that will be over 3Mb in size, or where you are offering a service where customers select the publications or documents that they want to purchase and then wait to receive the access authorization once they have paid.



IMPORTANT NOTE: Uploading files to a Windows IIS server

If you are uploading secure PDF files to a Windows 2003 server running IIS, then the file's MIME type must be registered on the server before it will allow the file to be transmitted through the web server. To do this, register the .pdc extension under the IIS Manager. For the MIME type select application/octet-stream. Then restart the IIS server.



6.3 **Summary**

Some business processes, such as invoicing, purchasing, dealing with patient medical information, providing short newsletters, are better served with a 'push' process where you send the required document to the customer or authorized recipient.

Other models, allowing the customer (rather than a business partner, associate or similar) to select a book or a subscription, and then download those items that are of immediate interest to them, purchase them and use them, are best characterized by the 'pull' model.

This does not mean that you should not advise your customers, by email, that a new version, update, or edition is available for them. That is perfectly sensible, and, indeed, perhaps necessary as part of your marketing approach. But it is a pull model because the customer decides to download the document, rather than you sending it to them.

6.4 Customers downloading the free Viewer software

The Safeguard Secure PDF Viewer software can be downloaded, free of charge, from either the Locklizard web site or your own.

You are also free to distribute the Viewer software without alteration.

The Safeguard Viewer contains automatic update detection. A check is made once a week with the Locklizard server to see if an update is available. If a newer version is available then the Viewer will invite the customer to update to this version. Please note that updated versions of the Writer may compel customers to update their version of the Viewer.



Chapter 7: FAQs

This chapter covers frequently asked questions regarding the use of Safeguard Enterprise.

If you encounter any technical issues then please visit our online knowledgebase as this contains the most up-to-date troubleshooting information. It can be accessed at http://www.locklizard-license.co.uk/support/index.php? m=knowledgebase& a=view

7.1.1 How does Safeguard Enterprise differ from file encryption products?

Whilst file encryption products protect information while it is in transit, or when stored on disk, they do not provide protection for the entire lifecycle of an electronic document. Once a document reaches the recipient, using classical encryption systems, the protection is lost (the recipient decrypts the document), and the document can be forwarded, copied and viewed by unauthorized recipients. In addition, encryption does not provide controls over document access rights - what a user can or cannot do with the document (print control, etc.) or document expiry.

Safeguard Enterprise dynamically protects PDF documents both inside and outside the network, online and offline, using strong encryption, document expiry and access rights, in order to provide persistent end-to-end protection throughout a PDF document's lifecycle.

7.1.2 How secure is Safeguard Enterprise?

Safeguard Enterprise uses US Government strength encryption - the AES algorithm at it's strongest setting, 256 bit. It would currently take today's fastest computer approximately 149 thousand-billion (149 trillion) years to crack a 128-bit AES key. Even with anticipated future advances in technology, AES has the potential to remain secure well beyond twenty years.



For more information on AES see the NIST AES fact sheet.

In addition, we don't use third party plug-ins to control your secure document access. This ensures we are not open to well known weaknesses in the published APIs or security holes in the third party application. One of our competitors that use this approach, has been compromised and found the only way to try and prevent hacking of their systems was via the legal system and a court writ!

We don't use JavaScript as this can seriously compromise the security of your customer's computers and even Adobe recommend turning off JavaScript in their Readers for this reason.

Documents are only decrypted for viewing in a secure, controlled environment, and are never made accessible unprotected. If an existing customer does not have a license for a specific document they cannot view it.

7.1.3 Is your application open to password attacks like Adobe & similar password based products?

No. The keys required to decrypt protected files are safely stored encrypted on the customer's computer. There are no passwords to enter, and therefore the system is not open to simple compromise or standard password attacks.

7.1.4 Do I have to upload my documents to your web server to protect them?

Absolutely not. We would strongly advise against using any system that employed this approach. With Safeguard you protect your PDF documents on your local computer, so that they are not exposed to any potential compromise in their unprotected form on a web server or while being transferred.



7.1.5 Do you host my secure PDF documents on your server?

No. For both security and legal liability reasons we never have access to either your unprotected or protected documents. In a professional environment that should not be a requirement and we recommend that you obtain legally enforceable indemnity where a supplier insists that they have access to your IPR at any time.

With Locklizard you host them on your server, web site or network, or you can send them by email just like any other file. What we host is the licensing system where you can issue your customers with licenses, and control who can access your secure PDF documents and publications.

7.1.6 Where can I publish my secured PDF documents?

You can publish your secure PDF documents to the web, on CD-ROM, on removable media, etc., or send them by email just like any other files.

7.1.7 Can users change my document security settings?

No. Once you have applied security settings to a document they cannot be changed by anyone. The settings become part of the document, and remain in force at all times, even when your customers are using your documents off-line (i.e. they are not connected to the Internet).

If you, as the publisher, want to issue the same document with different security settings (copying, printing, etc.) then you just protect the PDF file again with the new settings. You can then send this newly protected document to your customers.



7.1.8 Is there a limit to the number of documents I can protect or customers that can receive protected documents?

No. You can protect as many PDF documents as you want at no extra charge. There is no limit on the number of customers using the system and the Viewer software they download is totally free of charge.

7.1.9 Can I tell people where to buy a license from?

Yes. When you protect a PDF file you can add a free format text message to it. You might want to enter information on how to purchase if you are selling documents or give details on contacting your administrator if the system is used for internal document control.

This text is shown when a customer opens an unlicensed document. The text is also visible at the top of the document if they try to open it with a text editor or a similar application such as Notepad or MS-Word.

Of course, if you are using Safeguard for an internal system you would ensure that the message made it clear that any use of (or indeed attempted access to) the document would result in litigation.

7.1.10 Can my customers distribute protected documents to others?

Your customers can send protected documents to other users, but those users will not be able to view the documents unless they have purchased them from you. For this reason, secured PDF documents (PDC documents) can be freely distributed, emailed or published on the Internet, without any unauthorized individual being able to access the content.

In addition, even existing customers cannot necessarily view your protected documents. You decide which customers have access to what documents and what publications, and when, and how.



7.1.11 How can I control document expiration & revocation once a document has been published?

Post publication document control is maintained through the use of expiry dates and the ability to revoke access to a document or for a customer. For example, you can publish a document that will expire in a month's time, so that your customers will not be able to view it once the expiration date has passed.

Or, you can automatically revoke a customer if they leave a project, department or company or fail to maintain payments for a subscription. So you have a sophisticated range of controls that you can enforce concerning the ability of your users to make use of the documents that you license.

7.1.12 Why would I want to set customers to expire rather than documents?

The system is flexible so that you can actually do both. You may want customers to expire rather than documents because if a customer has subscribed to your service for a year then they are entitled to carry on viewing those documents after their subscription has expired. The system prevents them from viewing documents with dates outside their subscription period.

On the other hand, you may want to issue your customers, or prospects, with time sensitive trials or samples of documents, because you do not want them to carry on viewing a document that has passed it's expiration date. In this case once the expiry date has been reached the document is no longer viewable.

You can also expire customer access to individual publications. If a customer subscribes to one or several of your publications for a specific period of time then you can expire access once their subscription period is over.

7.1.13 We want to give prospects / customers free 30 day trials of our documents. Is this possible?

Yes. When you create a document you can specify the date at which it expires.



When a customer registers they can then view your documents until that date is reached. Once this date is reached the document will expire (if the document expires, it can no longer be viewed) and they will need to come back to you for a license to continue viewing the document.

You can also set customer accounts and access to publications to expire on a certain date. The difference here is that any documents published during their subscription period that you have authorized them to view can still be viewed after their subscription period has expired - they just won't be able to view any documents published before or after their subscription period unless they come back to you for a license.

So to summarize you can either expire documents (and they are no longer viewable once they expire) or you can expire customers and/or access to publications (and they can continue to view the documents that they were authorized to view during their subscription period). Of course, if you have forced your customers to connect to the Administration server before they can view your protected documents then you can instantly suspend their account and this prevents them from viewing your documents.

You can also limit the number of times a customer can view your documents and this feature is especially useful for free samples.

7.1.14 Do my customers have to be connected to the Internet in order to view my secure PDF documents?

No. You can allow secure PDF documents to be viewed off-line. All document controls (preventing copying, printing, etc.) are retained within the document itself and therefore no Internet connection is required to enforce controls. Please bear in mind however that an initial connection to the Internet is required to validate the user license and obtain the appropriate decryption key(s) when your customers view your protected PDF documents for the first time.

If you publish documents to publications, then your customers only need to be online the first time they view one of the documents in that publication. They will then be able to open other documents belonging to that publication off-



line. This is because documents published to a publication share a common key.

However, you can enforce that your customers connect to the Internet to view your documents if that is what you require.

7.1.15 Can I add existing customers to future secured PDF documents or publications?

Certainly. It is a simple matter of assigning the new publication or documents to existing customers.

7.1.16 What software do my customers need on their computers in order to view my secured PDF documents?

They need to download and install our free Viewer software - Safeguard Secure PDF Viewer. The Viewer software can also be freely distributed and published on your own web site if you prefer.

In addition, you need to set your customers up with an account on the Administration / licensing server so the system can email them their license file. The registration of the license gives them access to the protected document(s) you have licensed them to use.

7.1.17 What happens when my customers change or update their computers?

7.1.17.1 Upgrading Computers

Safeguard Viewer can be re-installed on the same computer without you having to issue your customers with an additional license. When your customers re-register with the old license details, the Viewer software checks with the Administration server certain details and lets the license be re-used.



7.1.17.2 Changing Computers

If your customers change computers, or replace their hard disk, then you will need to allocate them an additional license so they can install the Viewer software and register with you again. The number of times a customer can install and register the Viewer software is determined by the number of licenses you allocate to their account. Note that increasing the license count does not generate new licenses - your customers always use the same license file to register.

Additional licenses can be added to an existing customer account using the 'Show Customer Accounts' link in the Administration system. See allocating additional licenses.

7.1.18 The PDF source document has permissions already set. Does this affect Safeguard Enterprise?

No. If a permissions password has been set then Safeguard Viewer ignores any existing permissions.

Please note however that you must not have a document open password set. If this is the case you will not be able to protect the PDF file.

7.1.19 How do I stop access to old versions of documents?

If you update versions of documents and you want to force customers to use the latest versions then you must set the document controls to verify the license either every time the customer views the document or every n days (depending on whether it is critical that the document expires as soon as the updated document is published or there is a few days leeway). Then add the updated document either to a publication or to the customer, and delete the old document from the Administration system.

Remember to send an email to customers affected to tell them to download the updated version (or include the update as an attachment).



Please be sure to delete the correct document record as deleted document records cannot be recovered.

7.1.20 I sell ebooks and want customer records to be automatically created on the Administration system so that there is no delay in customers receiving their license emails after purchase. How can this be achieved?

You need to purchase our eCommerce integration module to achieve this. The system integrates with your existing eCommerce or shopping cart system and works by acting on HTTP PUT commands sent to the Locklizard licensing server. This creates the customer account and specifies what publications and or documents they are allowed to access.

For full details on the eCommerce integration module and commands available please see http://www.Locklizard.com/product-add-ons.htm.

7.1.21 If a customer purchases multiple documents from my company using different email addresses (e.g. JSmith@work.com and John Smith@home.com) so they now have more than one account on the Administration system, will they be able to access the documents they have purchased from the same computer?

Yes. Your customer must register each license (by double-clicking on it) on the same computer. Once they have done this they will have access to all the authorized documents for those registered accounts. Both licenses will be active simultaneously on the same computer.

7.1.22 I plan to create a single customer account for each company that subscribes to my reports and assign multiple licenses to that account (depending on the number of users within the company that I want to grant access to). Since multiple licenses are now



available, how can I prevent companies sharing these licenses with other companies and thus gaining access to my protected documents?

In order to achieve this you will need to restrict access to the Locklizard Licensing server based on IP address. You will need to install the Locklizard Administration system on your own server and make sure that the server only permits access from and responds only to connections from the public IP addresses you have specified.

So if a user at Company A sent his license file to a user which is located at a LAN/WAN that does not use an authorized IP address then that non-authorized user would not be able to register the license at his own workstation because he would not be able to access the Locklizard licensing server. Please make sure that the IP addresses you specify are PUBLIC so that they cannot be emulated (public IP addresses are ones that are registered with the Network Information Centre (NIC)).

7.1.23 How can I get users to open PDC files in the browser without having to save them to disk first?

This setting can be set manually or by running a file that changes the Windows registry settings.

7.1.23.1 Changing settings in the Windows registry

If you are using the Safeguard system internally then most likely you will want to use this option. Two files are provided for this purpose.

PDCFile_no_confirm_after _download.reg - running this file causes IE to always open the file from the browser, without asking to save it.

PDCFile_default_confirm_after_download.reg - running this file causes IE to ask the user to open/save the PDC file. This is the default setting.

Download the ZIP file containing both files from http://www.Locklizard.com/Downloads/PDCFileOpenDownloadConfirm.zip



7.1.23.2 Manually changing settings

If the user is not allowed to run REG files (limited user account), he/she can manually change this setting from the Windows File Explorer Folder Options window.

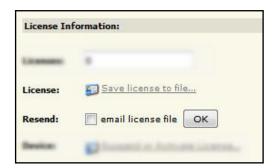
Select the Tools menu > Folder Options > File Types. Select the PDC file extension on the file types list -> press the Advanced button -> uncheck the 'confirm open after download' checkbox and then press the OK button.

7.1.24 My customer tells me they have not received their license file. How do I resend it?

Since the license email is sent by an automated server, some SPAM filtering systems may block this and prevent the email from getting through. If this happens you will have to resend the customer license.

7.1.24.1 Manually sending the license file

Click on the 'Save user license file to disk' link (below the username and password) in the customer record (see below)



In order to save the license file to disk, and then manually email this file to your customer. You might want to include as part of the email, the Safeguard Viewer license file email text which can be copied from http://www.Locklizard.com/safeguard-Viewer-license-email.htm.



7.1.24.2 Forwarding a license email address

You can enter a <u>monitor email address</u> on the admin system so that you will receive a copy of all license file emails that are sent to your customers. You may want to use this function if a large number of your customers are not receiving their license file emails, so that you do not have to use the 'save users license file to disk' option every time. Instead you can simply forward them a copy of their license file by email.

7.1.24.3 By automated means

This can be achieved using the eCommerce integration function "Get customer license file". This request enables you to display the license file that is sent to a customer on a web page, so that it can be immediately available to your customer, rather than them having to wait for an email to arrive before they can use the information. How this information is presented to your customer depends upon your own house style, but you could put a button or link to your web page, like Save File, so your customers can save the license file to disk. Note that the eCommerce integration function is available for separate purchase.

7.1.24.4 Getting the system to resend the license email

Use this option if the customer received their license email but deleted it by mistake.

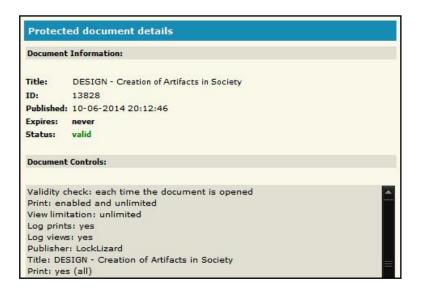
Check the 'resend license file' checkbox in the License File section of the customer record (see below) and then press the ok button.



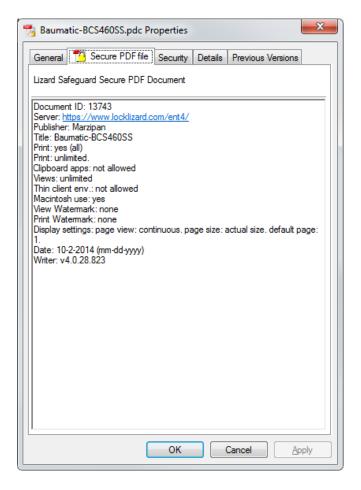
7.1.25 How can I tell what access controls have been applied to a document after it has been published?

This information is displayed on the administration server in the Protected documents details section > Document Controls.





You can also right-click on a protected PDF file (PDC file) in Windows File Explorer, select Properties and then the Secure PDF file tab.



7.1.26 When securing a pdf file if I have selected 'Disallow use on Macintosh operating system' do I, when setting print settings, still have to select 'Only Windows' when I want printing allowed?

No. If you select this option then users will not be able to open documents on Macintosh operating systems so they will not be able to print them.

7.1.27 Can a customer who has purchased a protected document change the file name with saving on his/her disk? If yes, does that make the file unusable?

Yes, your customers can change the file names to whatever they choose. No, the file can still be used as before.

7.1.28 Is there a way of having unique (trackable) watermarking for a customer with multiple licenses?

Yes, dynamic variables can be inserted into watermark text (user name, email address, company name, date/time stamp) and displayed at view/print time. The user name and email address combination is unique to each user so even if a customer has multiple licenses you can track which license was used when a document is viewed and/or printed.

7.1.29 If a .pdc file is on a CD and a customer attempts to open it, does the file perform exactly as if it were on the hard drive?

Yes. Protected PDF documents can be opened from any location (CD, email attachment, etc.) just like any other file.



7.1.30 I have enabled logging on document views but the Viewer won't let my customers open documents unless they are connected to the Internet despite the fact that I chose 'never' when enforcing an Internet connection

If you have logging enabled then the Viewer must connect to the Internet to log the view requests. Selecting logging overrides your 'Enforce an Internet Connection' settings.

7.1.31 If want to give customers unlimited prints but still log how many times they have printed. Is this possible?

You can only log print requests if you have limited the number of prints. You should set the number of prints allowed to a high number say 9999 (as it is unlikely that customers will print this number of copies) and then you can log print requests.

7.1.32 Under what conditions must my customers be online in order to view my protected documents?

If you have:

- Limited the number of prints
- Limited the number of views
- Logged print requests
- Logged document views
- Selected 'enforce an Internet connection' each time the document is opened (Expiry and Validity tab);
- Selected 'enforce an Internet connection' every n days (Expiry and Validity tab). In this case a connection is required after the number of days you have entered has elapsed;



7.1.33 I have added a new document/publication. How can I give access to this to all my customers?

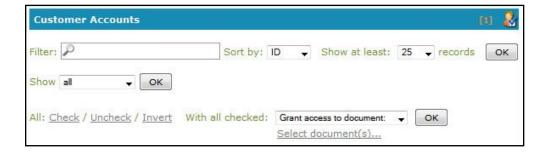
From the Customer Tab, click on the 'Batch Changes' link. Then choose the 'Grant document(s) access to all customers' or 'Grant publication(s) access to all customers' option.



Select the document(s)/publication(s) you want to grant access to.

7.1.34 How do I give multiple customers access to a document or publication I have just added?

From the Customer Tab, select the 'Grant access to document' or 'Grant access to publication' option from the 'With all checked' pull-down list box.



Then select the document(s)/publication(s) you want to grant access to.

7.1.35 I want to delete all customer accounts that have expired. Is there a quick way to do this?

From the Customer Tab, click on the 'Batch Changes' link. Then choose the 'Delete customers whose accounts have expired' option.



7.1.36 How can I ensure only users within my organization can register licenses?

From the Settings Tab, click on the 'Restrict IP' link. Then enter the IP address or range of IP addresses for your company.



7.1.37 How do I see how many times a user has viewed a document?

Firstly, you need to have logging enabled for the document (Printing & Viewing Tab of the Writer Software > Log Document Views).

From the Documents Tab, select the appropriate document and then click on the More Details » button to show the document properties (as shown below).



Select the link 'View document open history'. From the pop-up dialog that is displayed you will be able to select the users you want to view the document open history for.

7.1.38 How do I see how many times a user has printed a document?

Firstly, you need to have logging enabled for the document (Printing & Viewing Tab of the Writer Software > Log Print Requests).

From the Documents Tab, select the appropriate document and then click on the More Details » button to show the document properties (as shown below).



Select the link 'View document print history'. From the pop-up dialog that is displayed you will be able to select the users you want to view the document print history for.

7.1.39 I have restricted license registration to company employees but would like to allow a third party outside of our organization to register. How can I do this?

From the Customers Tab, select the customer account and then the button. In the Restrict IP field enter their IP address.

Customer	Information:	
Name:	Ben Charmers	
Email:	bcharmers@bluebell.com	
Company:	Bluebell	
Notes:	Subscription customer for Finance Monthly	
		- A
Account I	nformation:	
ID:	8088	
Status:	registered at 10-06-2014 20:07:53; enabled valid from 02-19-2010	
Start Date	: 02-19-2010 (mm-dd-yyyy)	
Valid until:	: © 02-19-2010 (mm-dd-yyyy)	
	never expires	
Restrict IF	P: 123.44.55.66	6

Chapter 8: Offline use

The most important thing to understand about enabling offline use of documents use (the 'Verify Document Access each time the document is opened' has NOT been selected when protecting the document) is that if you enable completely offline use then you lose the ability to change your mind about the controls that you initially applied. This is because once the document has been opened by the user, the administration server will not be contacted again to check/update the license details. It doesn't matter that the server may be contacted about other documents the user has because the offline document license will not be checked. That is what offline use means.

So it is not possible to change:

- access rights;
- end dates;
- restriction by IP address;
- ceasing of access;

and so on, unless the user of a document has to connect to a server, either in connection with the specific document or publication (for example to verify a print request), or if the user has to create a new keystore (removing the Viewer keystore and re-registering) because the old one has failed or no longer exists or maybe the user is changing machine. If any of these happen then the offline document will have a license check and any changes will get implemented at that time. But it is not possible to say if and when that kind of update will happen.

Therefore, if there is a reasonable possibility that you will need to change the controls on a document after it has been issued to a user, you MUST require a periodic license verification (once a week, month, year) and any change you make will not have effect up until the license for the document is verified.

So it is important to balance the requirement for offline access against the need to be able to change the controls on a document after it has been distributed.



8.1 Offline Use and Publications

If you are using the 'publication' concept to control access to groups of documents, once any document in the publication has been opened then all the other offline documents in that publication will also open without having a license check. So opening a document for the first time implicitly grants access to all the other documents protected to the same publication unless the document itself requires a license check.

Document end dates

Once a user has opened the first document in a publication, they have the ability to open all the other documents in the publication according to the individual controls on the documents. So if they then open another document that does NOT require a server check (offline use), the initial end date setting of the document will be accepted and enforced, and changes to document controls in the admin system will have no effect.

So if the initial end date is 'forever', but you have changed this to a fixed date on the admin system, the Viewer WILL NOT check with the server for a new end date even though the document has NEVER been opened before.

Equally, if the end date has passed, but the admin system has been set to give a longer date, the document will not be available because the initial end date has passed. Removing the Viewer keystore and re-registering will only affect the first document the user opens in a publication with regards to picking up new end dates. If you therefore want to alter the end dates for multiple documents in a publication you need to make sure that document access is verified each time the document is opened rather than allowing offline use.



Chapter 9: **How to use guide - Small Publisher**

A small publisher is someone who is selling something as an individual item or a series of separate items. These might include books, magazine articles, expert analyses, or similar.

The essential point is that the products are not sold as subscriptions where your customers are buying into regular deliveries of a report, a newspaper or magazine. If that better describes your business please see the guide for Large Publishers.

When managing one-off items you should always consider them to be single documents. Don't create a publication and start assigning documents to that publication. It will only add to your Administration without giving any benefits.

9.1 Setting document controls

There are two keys to retaining good document control.

The first key to maintaining control of documents is to give them clear and recognizable titles – something that you and your customers can easily recognize. (The Locklizard system will also give them unique reference identifiers but these are not human readable, and are designed to ensure uniqueness in all our internal document references.)

If you have clear titles, then even if your list of documents is more than a page you will be able to go through the list very quickly when you want to allocate a specific document to a customer.

The second key is to set the controls to be applied to the document to be those it is most commonly sold with. For instance, if you are selling a book it is normal for people who buy it to be able to read it forever (quite a long time) so it doesn't make sense to set an end date for a year away, and then have to amend it most times you sell it.

You can then vary the document controls if you want to give individual customers something different – a short document access period (one day) if



you want to give them a 'taster' before they buy, perhaps. You can later sell them the document with no expiry date so that they can make full use of it.

9.2 Controlling customer records

Don't worry about adding the same customer to the database another time if you sell them another product. It doesn't matter. You can give them access to the new document under their existing record. You can sort through customers by name, ID, or by e-mail if you need to find their customer record. And if you want to create a new customer record for the same customer rather than go hunting for them you can do that without any complications.

You can also license a customer to have more than one copy of the document to read, so maybe you give them two licenses so they can load the document onto two PCs in order to use it.

9.3 **Customer Management**

If you sell books, then likely you and your customer will expect that they can read it from now on. Your customer is not going to expect to suddenly not be able to read the documents they have purchased. So most of the time you are just going to license a customer to read your information forever. Although there are features in Locklizard that allow you to suspend customers it's not likely that you will need to use them.

Copyright law, as it stands today, allows you control of your work for between 50 and 120 years after your death (good for the family even if you don't personally benefit). But people who buy a physical book expect to be able to read it at any time in the future, just the same as if you have bought a painting you expect to be able to see it when it suits you. So it's good practice not to try setting different rules unless there are very good reasons.

Chapter 10: How to use guide - Large Publisher

A large publisher is defined here as being anyone who is publishing one or more titles that appear daily, weekly or monthly. A large publisher is also an enterprise with a large book list. If you are publishing a book list rather than periodicals or subscriptions the guide to small publishers may be more helpful.

This guide is oriented towards those whose bread and butter business is regular publications, and where their customers purchase subscriptions to publications that last for a period of time. These can be financial reports, weekly or monthly magazines, product documentation and updates and documentation. It also provides some suggestions over how to provide customers with 'one-off' copies of publication documents, and how to manage that situation.

10.1 Organizing publications

If you already have a regular publication then you will have established what the publication titles are so in the licensing system you can simply enter those titles. Otherwise you will have to create meaningful publication titles for both you and your customers. Now you will be able to allocate customers a publication and they will be able to receive and view any documents that belong to that publication while their customer status is valid.

10.2 Setting document controls

There are two keys to retaining good document control.

The first key to maintaining control of documents is to give them clear and recognizable titles. In the case of publications this may be a reference to the publication and the date of publication, rather than a title using words, although you can do that if your publications are well organized. Market



Analysis June 04 or MrktAnal0604 may both be fine for your internal administration. You might use the actual original filenames if that suited your internal Administration system better. (The Locklizard system will have also given them unique reference identifiers to ensure uniqueness in all our internal document references.)

Before you secure the document for publication you will allocate it to a publication in the Administration system. This is to make sure that all your customers for that publication will be able to read it when they get their copy, without having any additional registration requirements.

The second key is to set the controls to be applied to the document to be those it is most commonly sold with. For instance, if you are selling a book it is normal for people who buy it to be able to read it forever (quite a long time) so it doesn't make sense to set an end date for a year away, and then have to amend it most times you sell it. Magazine publications, like books, usually entitle the customer to read them forever after purchase, so you may find it best to follow that model.

10.3 Controlling customer records

You may want to control customer records closely. This depends mainly on the integration between your back-end accounting system and the Locklizard publications control. The item of uniqueness is the email address, because this is unique to each customer. The customer name (and company, if used) need to be references that your back-end accounting system is able to recognize. The Locklizard system will allow you to have multiple records for the same customer if you wish to operate in that way.

You can also license a customer to have more than one copy of the document to read, so maybe you give them two licenses so they can load the document onto two PCs in order to use it.

10.4 Controlling individual documents

The fact that you have allocated a document to a publication doesn't mean that only customers buying the whole publication can view it. You can also allow customers to have one-off access to any documents that you have protected. And you can change the access rights that they receive from those given to people who have purchased the publication. So if you want to let them just read it for a week, you can make a one-off limitation for that, or requiring them to have to be online in order to read it at all. These may be useful techniques where you are trying to cross-sell publications across your customer base.

Do be aware that you can protect the same document more than once, even giving it the same title. Locklizard creates a unique reference number with each protection, so internally we are always able to distinguish between documents presented to us. If you do not change the title when protecting a document that is already protected you may find it difficult to know which document title has which controls.

10.5 **Customer Management**

If you sell books, then likely you and your customer will expect that they can read it from now on. Your customer is not going to expect to suddenly not be able to read the documents they have purchased. So most of the time you are just going to license a customer to read your information forever. Although there are features in Locklizard that allow you to suspend customers it's not likely that you will need to use them.

With magazines, reports and regular publications, customers expect to be able to read any document that they were entitled to during their subscription period. Like books, you probably need to set the document expiry date to never so that people who have paid for a particular document can use it.



10.6 Copyright law

You probably know a great deal more than we do about the impact of Copyright law on publishers. But it helps to recall that Locklizard services are not configured to allow for concepts such as 'fair use' (unless you have a specific policy for allowing libraries access to your publications, perhaps) which would apply to published documents.

Also, Locklizard has not been configured at this stage to allow for free access once your copyright in the work ends. Whilst we would like to be able to offer that service, it is not available at this stage and you should make appropriate arrangements to satisfy that requirement by another means.

Chapter 11: How to use guide – Internal Administration

Although the Locklizard products appear to be focused upon publishers, an enterprise is also a major publisher of information internally. In most instances internal publications are similar to those of a book or magazine publisher, but with one very important difference. Publishers publish their material to 'the public' and their work becomes subject to the international laws of copyright. Internal publications, while they may have some copyright elements, are more usually trade secrets.

Trade secrets are much more important, for the enterprise, than copyright documents. Trade secrets are used before patents are created. Trade secrets are used before formal reports are issued to the SEC or to analysts or banks, or lawyers. Although enterprises cover many confidentiality and secrecy issues in their contracts of employment they still need to implement adequate procedures and controls to support keeping a trade secret. If you are going to prosecute for either theft of a trade secret or theft of copyright information you are going to need proof that the person had access to the information so that you can show they had access.

In many ways, internal document management is no different to running a publishing house, except perhaps that there is no accounting control for sales and customer management (unless you are using an outsourced administration model perhaps). Instead of customers you have departments or task forces or workgroups. These may align more with publication groups. The same goes for formal reporting groups, boards of management and investor relationships.

11.1 Organizing publications as internal structures

Instead of thinking about publications, think about the internal distribution requirements that you have for similar documents. These may be based around a research project or around a litigation or around the accounting function.

So as an administrator you will need to be able to allocate specific documents to internal groups who have a need to be able to use the document. Each of these groups is either an internal organizational unit, or one that is related to operational groups that the enterprise formally communicates with on a regular basis.

11.2 Setting document controls

There are two keys to retaining good document control.

The first key to maintaining control of documents is to give them clear and recognizable titles. When you are controlling internal files, the filename, version number and source (which department owns or created it) are useful references. If you have a document management system it will likely have a reference for the document that you should use to maintain consistency between environments.

Locklizard will generate a unique reference number for the document internally, but you need to use the title of the document for reference.

A document does not need to be allocated to an internal publication group, although in many instances you are likely to want to do that from the start since it will make administration easier. However, some documents may be created for an ad-hoc group, and the individual members of that group can be allocated the document on a case by case basis if that happens. (If you do allocate the document to an internal group do remember that all the members of that group will be able to use the document wherever they get a copy from.)



The second key is to set the controls to be applied to the document to be those it is most commonly restricted to. For instance, if you are providing minutes of meetings or summaries of current research work for internal information there may be no need to let people print out the information.

If you do need to let specific individuals have greater rights then you can either allocate the document to them individually, or if the group is big enough, protect the document a second time for the other group, giving different default access rights.

11.3 Controlling staff (customer) records

You will likely want to control staff (customer) records closely.

Whilst Locklizard calls the staff customers, some of the people you may be sending controlled documents to may be outside of your organization and are more like real customers than internal staff. You can use the 'customer' record to hold the information about the member of staff or external recipient. The name and the email address are going to be the most important fields in the record since they are unlikely to change very often, if at all.

Because you are using the system to demonstrate internal compliance you will want to have logs of who has accessed documents, and when they did so.

To achieve this level of logging you will need to specify that staff must be online to the Administration server (which will be either on your internal network or be hosted by Locklizard on your behalf). This has the benefit that you can also suspend or revoke customers or documents at any time and with immediate effect.



11.4 Controlling individual documents

The fact that you have allocated a document to a publication doesn't mean that only staff given access to that publication can view it. You can also allow others to have one-off access to any documents that you have protected. And you can change the access rights that they receive from those applied when it is part of a publication.

So if you want to let someone just read it for a week you can make a one-off limitation for that, or requiring them to have to be online in order to read it at all.

Do be aware that you can protect the same document more than once, even giving it the same title. Locklizard creates a unique reference number with each protection, so internally we are always able to distinguish between documents presented to us. However, remember that if you do not change the title when protecting a document that is already protected you may find it difficult to know which protected document is which.

11.5 Providing legal access

In any organization there are occasions when you will be required to provide access to some of your internal documents to external bodies (government officials, accountants, lawyers, court officials and so on). Often these documents are electronic rather than paper, and you want to be sure that only those who have been authorized to use them can do so. This may include being sure that after a certain time or date the documents will no longer be accessible.

Locklizard controls are an ideal way of ensuring that while you are complying with granting lawful access to specific information, people other than those authorized cannot read or use that information. It also means that you have a record of all the documents that have been provided, know who has actually registered to use them and when. You can also log when each document was



opened and when it was printed, and how many times this occurred. You can later add to the documents in that publication and send the protected files to them by email since your information is not going to be compromised because it can only be used by the authorized recipients.

Chapter 12: Picking a good structure for filenames

Choosing a good filename is probably one of the more challenging problems faced by any computer user. It represents the ultimate difference between man and machine. Man likes things that are easy to read and understandable. Machines like binary codes that are unique. The two things are just not the same.

The international standard ISO/IEC 15944-1 (2002) defines an identifier (in business transaction) as "an unambiguous, unique and a linguistically neutral value, resulting from the application of a rule based identification process. Identifiers must be unique within the identification scheme of the issuing authority."

Well that looks like a bit of a mouthful from a standards body, but like most academic works it actually spells out pretty well what we have to achieve if we're going to have names we can understand that the computer can also cope with.

But let's look back at what the standard actually said before we get too depressed, and also think a bit about what we are trying to achieve. We are people, so we are going to use semantics because publishing is about words that means something.

If you only publish a dozen items a year, giving the filename the same name as the article makes entirely good sense, and if it's a series just add the date (month/year?) of publication. That's a rule based identification process! After all, author's don't repeat titles that often. So that solves the uniqueness.

It gets more difficult though if you are publishing hundreds of documents (books, magazines, papers) because long and meaningful (and not very semantically neutral) names get too big and difficult to administer.

So a little rule based scheme might look like:

- First 3 characters identity of the publication. This would be an acronym for the title.
- Next 6-10 characters document title



- Next 6-9 characters date published (either month, day, year or day, month year with the month being either two numbers or two or three letters and year being four numbers)
- Next 3 characters could be the author's initials.

By now you can figure out that you have run out of space to actually read the name. But you can search for it quickly. And you may prefer to put the date before the document title if you are more likely to search for something at a point in time rather than knowing the actual title.

So you have a couple of options to go for. Whilst hopefully the titles will mean something to you when you are searching for them, as well as meaning something to your customers when they are searching for them, which of course is the other side of the equation. Customers are the recipients of information, and they need to know how to find it. They won't be able to search for the text in a document because it will all be encrypted. So the filename you pick must have some relationship with the title of the document as the customer sees it so that it is useful. So maybe the author's initials aren't that important.

Anyway, you should now have a few working suggestions for filenames that both you and your customers will be able to find.



Chapter 13: Date and Time controls

Date and time are always handled by Safeguard Enterprise in Universal Coordinated Time (UTC time), which is very similar to Greenwich Mean Time unless you study physics.

The UCT Time when a document is first opened is recorded in the admin system. Where a document has a fixed end date it will cease at the same time as it was first opened (UCT Time) on the end date specified. Where global services are in use, publishers need to be aware that this time may appear to be quite different in different countries, although it is precisely the same time overall.

There are a number of additional points that publishers should keep in mind:

- Date and time are only verified when the Safeguard Viewer is opened and the document is opened;
- If the document is not closed and the expiration date and time are passed, that is not detected by the Viewer. It will only be detected when the Viewer opens a new document;
- Safeguard Enterprise can detect any attempt by the customer to change the
 system date and time to a date and time that is earlier than the last occasion on
 which a document was opened by Safeguard Enterprise. If this is attempted
 Safeguard Enterprise will refuse to open documents until the system date and
 time are set to later than the last access;
- If a customer alters the system date and time to a date and time that are after
 the last access to a document then unless there is a requirement to verify a
 license with the Administration system that date and time will be accepted as
 valid;
- Changes implemented by the publisher on the Administration server will only
 take effect on the customer if they must connect to the Administration server to
 verify their access rights, and until such time as customers are obliged to connect
 to the Administration server their existing rights remain unchanged.



Chapter 14: Safeguard Writer Utilities

Safeguard Enterprise Writer is provided with a number of additional utilities. Below are descriptions of the utilities, including examples of when you may need to use them. Some of the utilities are supplied as part of the Writer program and others are available as separately purchasable items. When a utility is a purchase option that is mentioned in the text below, and prices may be found on the Locklizard web site http://www.Locklizard.com.

14.1 Remove Keystore

This utility is accessed from the Windows > Start > Programs > Locklizard > Safeguard Enterprise > PDF Writer menu, 'Remove Keystore'.

You may need to use this utility if you registered a Writer license for testing purposes, and later want to use the same Writer software on the same computer but register it with a purchased license which you intend to go live with.

Also, following a successful account password change, you may want to use this utility on those computers where you are registering the new Writer license with the changed password. Note that de-installing the Writer software does NOT remove the keystore so you must use this utility to remove the keystore files.



14.2 Change Account Password

This utility is available from the Windows > Start > Programs > Locklizard > Safeguard Enterprise > PDF Writer menu, 'Change Account Password'.

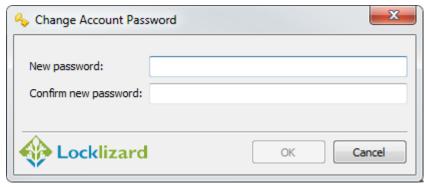


Diagram 85: Change Account Password dialog

There are a number of operational reasons why it may be necessary to change the access password to your Safeguard Admin account. If an administrator in your company leaves or is re-assigned job roles then you may want to use this utility so they can no longer access the Admin system.

It may also be necessary if you used a third party company to carry out the eCommerce integration work for you because you will need to change the password so they no longer have access to the live system and cannot either see or alter any of your information.

In the fields provided (see dialog above) you enter and then confirm a new password. If the password in the 'confirm new password' field does not match the entry in the 'new password' field then the OK button will remain grayed-out. The OK button will only be selectable if both the 'new password' field and the 'confirm new password' are an exact match.

We recommend that you use a password that is more than 16 characters long and contains letters, numbers and special characters such as * or & (and so on). You do not need to remember this password because, following a successful password change a new Safeguard Writer license email is sent to the email address that was entered when your Safeguard Writer account was created (please note that this may be different from the support email address you have defined).



If you have more than one administrator using the system then they too will have to change the account password to match. They can either do this manually, following the procedure above (making sure they enter the same password that you entered), or they can register with the new license file that was sent by email. If they decide to register again with the new license file then please make sure they use the 'Remove Keystore' utility first to delete the keystore that was registered with the old password (see above).

14.3 Checking for Program Updates

This utility is available from the Windows > Start > Programs > Locklizard > Safeguard Enterprise > PDF Writer > About menu > 'Check for Updates' button. Automatically, once a week, the Writer software will check to see if a new update for the Writer is available.

However, you can also manually check for updates at more frequent intervals by selecting the 'Check for Updates' button. The Writer software will check if you are using the latest version and download and install the update if this is not the case.

You may want to use this facility if you are aware that a bug fix has been issued and you want to download the latest update straight away.



14.4 Command Line and batch processing

Safeguard Enterprise Command Line Utility is a paid option that allows you to automate all the actions that would otherwise have been carried out manually while protecting documents using the Writer GUI interface. Commands can be run from the DOS prompt or from a batch file without the need for manual intervention. All the options available through the Safeguard Enterprise Writer GUI can be accessed through the command line utility.

This utility is available for separate purchase. A separate user manual is provided setting out in detail the commands, how to format them, and giving examples of usage. For more details see http://www.Locklizard.com/product-add-ons.htm.

If you would like to evaluate Safeguard Enterprise Command Line then please email sales@Locklizard.com.

14.5 **eCommerce integration and automation of the Administration** system interface

Whilst the Safeguard Enterprise Administration interface is well suited to the smaller publisher, larger organizations may require full automation between their own applications (web site customer administration, credit card processing, internal document management) and the Locklizard Administration service.

To support automation and 'loose' integration, Safeguard Enterprise provides a servlet that publishers are able to call in order to transfer information automatically into the Locklizard Administration system (i.e. user name, email address, publications and or documents a customer is entitled to view), or to cause the Locklizard Administration to take a specific action, such as provide information about a customer record, list all documents or publications.



You may want to use this utility in conjunction with the command line utility for a totally automated system where no administrator input is required. The overall protection process can be automated from initially protecting information through setting up users on the Administration system to specifying the publications and/or documents they can use.

This utility is available for separate purchase. A separate user manual is provided setting out in detail the commands, and giving examples of usage, along with a sample PHP integration script for shopping cart integration. For more details see http://www.Locklizard.com/product-add-ons.htm.

If you would like to evaluate Safeguard Enterprise's eCommerce module then please email sales@Locklizard.com.

14.6 Batch Document Upgrade

There are occasions when publishers will find it helpful to be able to require users to use the latest Viewer. These may be as a result of the additional new functionality, or for the purpose of improving the overall system security. Forcing users to upgrade to the latest version of the Viewer is good practice for resisting attempts by hackers and others to break earlier releases. Publishers should consider this a matter of good practice and should implement update programs on a regular basis for all their protected documents.

To facilitate this process a batch update feature is available from the Safeguard Enterprise program group – Windows Start menu > Locklizard > Safeguard Enterprise > PDF Writer > Batch Document Upgrade, that upgrades **PDC** files to the latest document version.

Select the Add files... button to select the PDC files you want to upgrade and then the Upgrade all button. Once you have upgraded your PDC files you can then distribute them to your customers.

14.7 Publisher Own Branding

For an additional fee, publishers can substitute their own branding/logo in place of the Locklizard logo that is displayed in the top right hand corner of the Safeguard Secure Viewer toolbar.



Diagram 86: Safeguard Secure Viewer toolbar

Publisher own branding is a valuable and flexible approach to helping publishers present their unique electronic image in the same way as the print image is handled.

Publisher own branding uses a web link to an image containing whatever image the publisher wishes to have displayed. That branding is transferred when the publisher's customer registers their license, and is also updated (if necessary) whenever that customer's license is checked. So publishers are able to change their house style dynamically, and can even use special branding for periods of time if they so wish. However, it only changes on the customer's Viewer when the license for that publisher is checked for any reason.

14.7.1 Viewer branding image

If publisher own branding is enabled on your account then the customization tab will make an additional field available called 'Viewer branding image'.

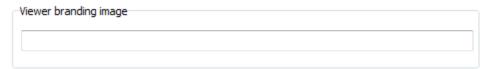


Diagram 87: Viewer branding image field

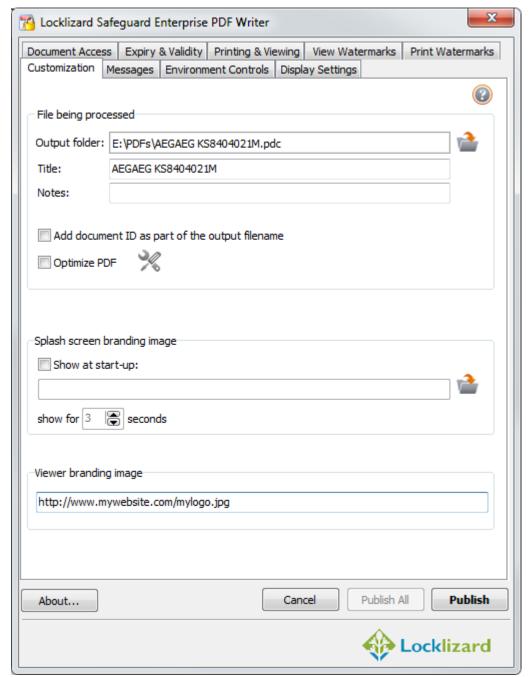


Diagram 88: Customization tab with Viewer branding image field

In the 'Viewer branding image' field enter the URL of a JPG image you want to use to replace the Locklizard logo.

NOTES:

- The maximum image size is 285 (width) x 35 (height) pixels. If the image exceeds this size it will be automatically truncated by the Viewer, and not stretched or resized. While the width will go as far as the screen will let you (up to the bookmarks button) the longer you make the image, the less likely it will display fully at low screen resolutions (less than 1024x768).
- The logo branding image must be a valid URL path to a JPG image.
 Example: http://www.locklizard.com/Images/coolbird.jpg
- An Internet connection is required in order to download and change the Viewer toolbar logo. If no connection is available, or the logo is not found on the specified URL, the default Locklizard logo will be used.
- Closing the current document or opening another document with no custom logo will reset the toolbar logo to the default Locklizard one.
- If you want to add a hyperlink to your custom logo, so that when a user clicks on your logo they are taken to your web site, then enter the URL on the JPG comments field (on Vista, right click on the jpg file -> properties -> details -> comments field).

14.8 Safeguard PDF Portable

Safeguard PDF Portable is a portable, no installation (zero footprint), Viewer and secure PDF document copy protection solution for USB sticks. It can be used as a completely offline solution (no Internet access required), and since secure documents are locked to USB sticks rather than to specific computers they can be used anywhere.

Safeguard PDF Portable provides real zero footprint security - nothing is loaded onto or installed in anything on a user's computer system. The PDF USB Secure Viewer software runs directly from the USB stick, working in exactly the same way as the secure Viewer that requires installing on your computer.



Publishers purchasing Safeguard PDF Portable for USB can distribute any combination of secure Viewers, secure documents, and keystores on USB sticks, offering publishers and users novel and significant flexibility in both distributing and using DRM controlled documents. USB sticks can be updated on-the-fly after distribution.

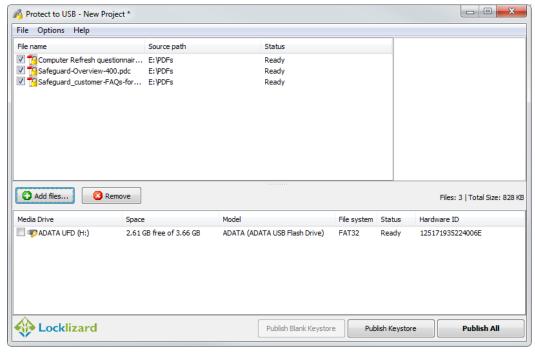


Diagram 80: Protecting PDC files to USB devices

Safeguard PDF Portable solves the issues of firewall access, granting administrator privileges, Internet availability, and the use of roaming profiles. It does not rely on insecure plug-ins, self-extracting exes, or JavaScript, in order to provide total DRM copy protection. For additional user privacy, USB sticks can be password locked to prevent unauthorized use if lost or stolen.

Safeguard Web Publish & Web Viewer 14.9

14.9.1 Web Publish

Safeguard Web Publish is an additional add-on that enables you to publish PDC files for use with the Web Viewer. Web Publish optimizes PDC files for use in a browser environment, and uploads them to a cloud server so they can be accessed using Safeguard Web Viewer.

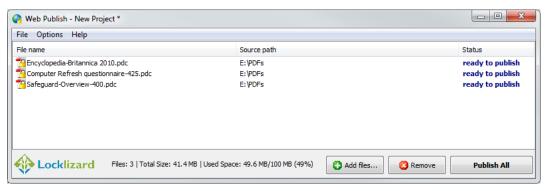


Diagram 81: Protecting PDC files for use with the Web Viewer

From the Safeguard administration system, publishers select what users can use the Web Viewer and the documents they can access.

14.9.2 Web Viewer

Safeguard Web Viewer is a no installation browser based Viewer.

It enables protected PDF files to be viewed in a browser and works with all the main browsers on any Operating System:

- IE
- Firefox
- Safari
- Chrome

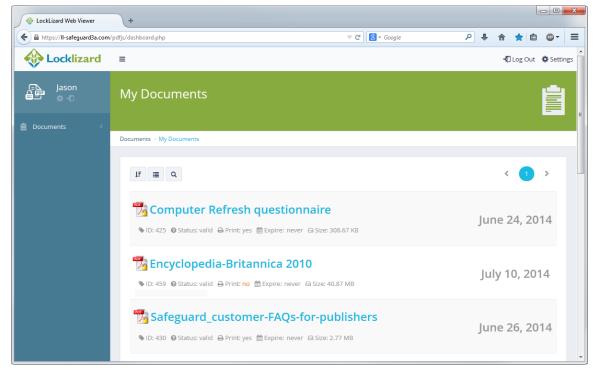


Diagram 82: Safeguard Web Viewer

Safeguard Web Viewer is ideal for environments where no Viewer software can be installed or in environments where users do not want to do this. However, it is not as secure as the installed or USB Viewer and users must be **online** to view protected PDF files.

The following functionality is not supported:

- preventing screen grabbing;
- locking keystores to specific devices;
- controlling usage in thin client/virtual environments;
- controlling the number of prints allowed.

You should therefore bear this in mind when deciding whether to allow Web Viewer access.